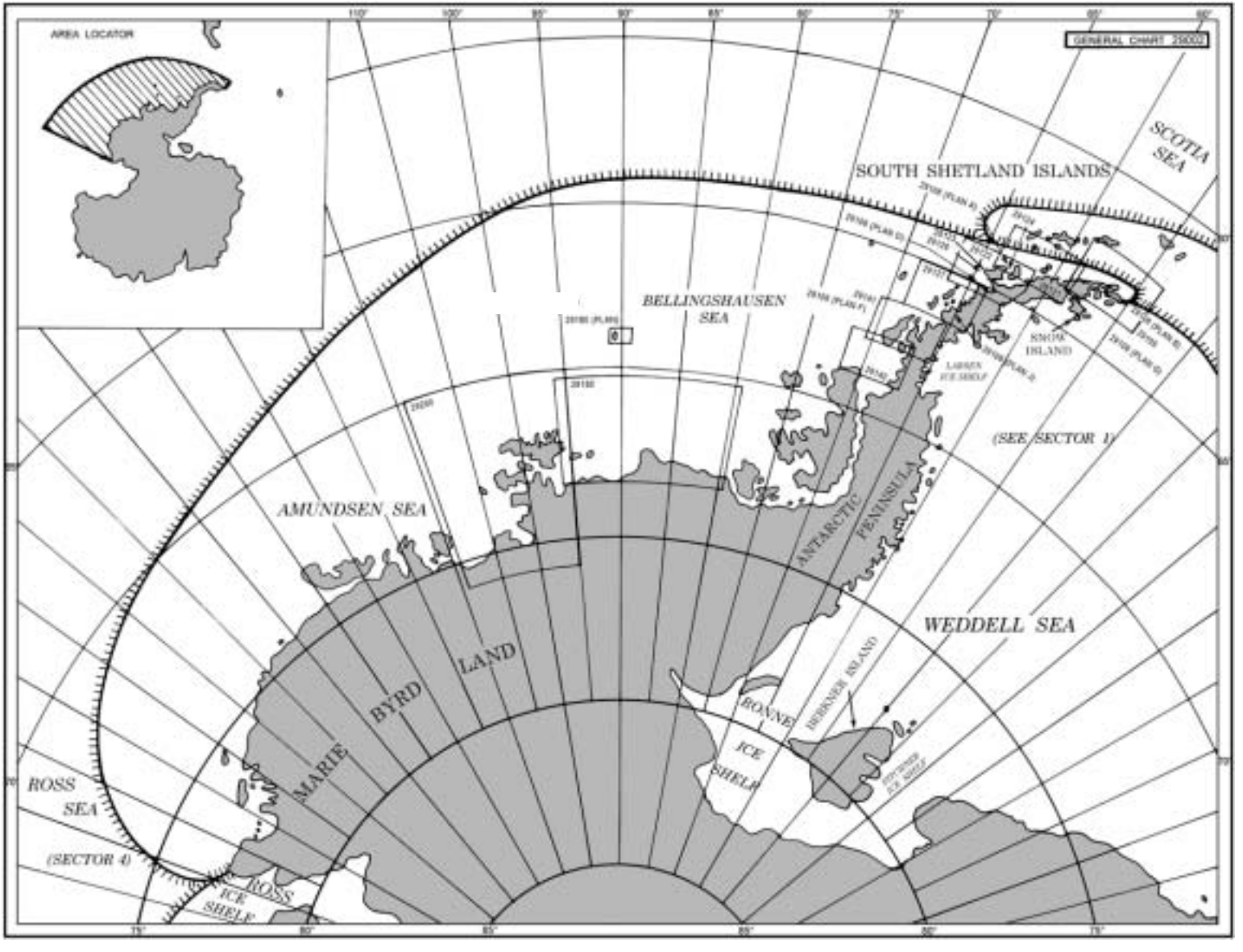
Click on "See Sector" to be hotlinked to that Sector.



Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **3** — CHART INFORMATION

Table of Contents

Table of Contents

SECTOR 3

THE ANTARCTIC—JOINVILLE ISLAND TO CAPE COLBECK

Plan.—This sector describes the coast of Antarctica from Joinville Island to Cape Colbeck, including the Bellingshausen Sea and the Amundsen Sea. The descriptive sequence is W to E.

General Remarks

3.1 **Bransfield Strait** (63˚00'S., 59˚00'W.) separates South Shetland Island from **Trinity Peninsula** (63˚37'S., 58˚20'W.). This strait is about 60 miles wide at its NE end and narrows to a width of 24 miles between Low Island and Hoseason Island, at its SW end.

The Antarctic Peninsula is nearly 800 miles long and separates the Weddell Sea from the Bellingshausen Sea.

The E side of James Ross Island is generally inaccessible due to drift ice. The W side is accessible for a period in summer, but there are few places where it is possible to land on the mainland.

Winds—Weather.—As the circumpolar trough lies across the central part of the Antarctic Peninsula, there is a significant climatic change from N to S. Winds from the SW prevail at Hope Bay, while SE winds are dominant at Marguerite Bay. At the Argentine Islands, the winds are more variable, with about the same frequency blowing from the N and S. Hope Bay experiences frequent SW gales, while SE gales are common at Marguerite Bay. Gales are less frequent at the Argentine Islands.

Tides—Currents.—The predominant direction of the current in most parts of Bransfield Strait is towards the NE; however, the current sets towards the SW on the S side of the strait. The currents, particularly those setting towards the NW, sometimes attain rates of 3 knots.

Joinville Island to Cape Kitter

3.2 **Joinville Island** (63˚15'S., 55˚45'W.), the largest of the Joinville Island group, is fully described in paragraph 1.43.

Cape Dubouzet (63˚16'S., 57˚01'W.) is located 12 miles SW of the W extremity of Joinville Island. From this cape, the coast extends WNW for about 7 miles to **Prime Head** (63˚13'S., 57˚17'W.), the N extremity of **Trinity Peninsula** (63˚37'S., 58˚20'W.), and then WSW for 17 miles to **Cape Legoupil** (63˚19'S., 57˚55'W.). It is irregular due to seasonal changes in the ice cliffs, which extend to the sea from the high inland slopes.

Gourdin Island (63˚12'S., 57˚18'W.) lies 1 mile N of Prime Head. Column Rock, a prominent pinnacle rising almost sheerly from sea level, lies 1.7 miles N of this island. Lafarge Rocks, a group of rocky islets, lies 6.5 miles W of Gourdin Island and Nomad Rock lies about 4 miles W of them.

Casy Island (63˚14'S., 57˚30'W.) lies 1 mile offshore, 5.5 miles SW of Gourdin Island. A depth of 152m, over a bottom of mud and small stones, was reported to lie between this island and the coast.

The **Duroch Islands** (63˚18'S., 57˚54'W.) lie within an area of foul ground which extends up to 2.5 miles seaward of Cape Legoupil. A beacon, equipped with a racon, is situated on an island about 1.4 miles WSW of the cape.

A beacon, 4m high, stands on an islet, 0.8 mile NW of Cape Legoupil. It has been reported destroyed (1997).

It was reported that good anchorage could be taken about 0.4 mile N of the beacon.

At Cape Legoupil, the ice cliffs are 3 to 9m high and are backed by a few crevasses. General Bernardo O'Higgins, a Chilean base station, is situated in the vicinity of this cape.

An anchorage berth, which can be used in calm weather, lies within **Covadonga Harbor** (63˚19'S., 57˚55'W.), close off the station and 0.3 mile ESE of the beacon. However, the bottom consists of rock and the holding ground is bad. In addition, large icebergs, which separate from the glaciers to the E, are set by strong currents through the islets and provide a hazard to vessels in this roadstead.

It has been reported (1997) that vessels should anchor in daylight hours only, in depths of less than 40m, and monitor the icebergs in the vicinity.

In good weather, anchorage can be taken, in a depth of 37m, mud and sand, in the middle of a cove lying on the SE side of the W extremity of Cape Legoupil.

3.3 **Montravel Rock** (63˚09'S., 58˚02'W.) lies about 11 miles NNW of Cape Legoupil and is marked by a beacon with racon, 4m high.

The area lying to the S and W of the beacon should be navigated with care as there are many dangers. Shoal patches, each with a depth of 11m and over which the sea breaks, lie about 5 miles NE and 3.5 miles WSW of the beacon. A shoal, with a least depth of 22m, lies about 5 miles ENE of the beacon; breakers have been reported to occur about 1 mile W of it. Rocks, 1.5 and 1.8m high, lie 3.5 miles SW and 4.5 miles SE, respectively, of Montravel Rock.

The dangers in this area are separated from Peralta Rocks, which lie 5.5 miles SW of Montravel Rock, by a clear and deep channel.

Cockerell Peninsula (63˚24'S., 58˚08'W.) is located 7 miles SW of Cape Legoupil and consists of a rounded headland which is joined to the mainland by a narrow isthmus. Huon Bay, which recedes for about 2.5 miles, lies between this peninsula and the cape.

The **Tupinier Islands** (63˚22'S., 58˚16'W.), a group of nine small islands surrounded by foul ground, extend up to 4 miles NW of Cockerell Peninsula.

Cape Roquemaurel (63˚33'S., 58˚56'W.) is located 24 miles WSW of the peninsula; a shoal, with a depth of 31m, is reported to lie about 8 miles NW of it.

Astrolabe Island (63˚17'S., 58˚40'W.), 564m high, lies with its S extremity located 16 miles WNW of Cockerell Peninsula. A bay indents the N side of this island, but it has not been surveyed.

Table of Contents

A group of three islets, with the westernmost islet located 3.5 miles ESE of the E extremity of the island, is surrounded by foul ground. A shoal, with a depth of 18m, is reported to lie about 1.5 miles W of the W islet. A rock, awash, lies about 8 miles SW of the W end of Astrolabe Island.

Jacquinot Rocks lie at the N edge of an area of foul ground, about 2 miles WNW of Astrolabe Island. A below-water rock, existence doubtful, is reported to lie about 10 miles WSW of the island. A shoal, with a depth of 5.5m, is reported to lie about 10 miles NW of the island.

Hombron Rocks lie about 3 miles offshore, 8 miles NE of Cape Roquemaurel, and are fronted by several reefs. Molina Rocks lie about 5.5 miles ESE of Astrolabe Island; a shoal patch, with a depth of 18m, lies close NW of them.

3.4 **Young Point** (63˚36'S., 58˚55'W.) is located 3.5 miles S of Cape Roquemaurel. Bone Bay, which is 3 miles wide at its entrance, indents the coast close S of this point. Blake Island, which is narrow and about 1 mile long, lies in the center of the approach to this bay and is fringed by foul ground on its W side. Whaleback Rocks lie about 1.5 miles W of this island. From the head of this bay, Trinity Peninsula extends 18 miles to Prince Gustav Channel.

Cape Kjellman (63˚44'S., 59˚24'W.) is located 12 miles SW of the S entrance point of Bone Bay and is fringed by below-water rocks. The stretch of coast extending 6 miles ENE of this cape is fronted by numerous islets and dangers. Several hills, 305 to 1,158m high, stand along Trinity Peninsula in this vicinity.

Cape Kater (63˚46'S., 59˚54'W.) is located 13 miles WSW of Cape Kjellman; Charcot Bay indents the coast between them. Almond Point projects from the head of this bay at the E side of White Cloud Glacier. Webster Peaks, a group of four rocky hills, rises 5 miles WSW of this glacier and attains a height of 1,065m.

Two glaciers flow into the bay. McNeile Glacier flows N to the SE side of Almond Point while Andrew Glacier flows ENE to the W shore about 5 miles S of Cape Kater.

Anchorage, sheltered from W winds, may be taken, in a depth of 32m, shingle, about 0.5 mile off the W side of the bay.

The aspect of this entire part of the coast is a high, ice-covered plateau in the interior with glaciers flowing toward the coast and forming a continuous ice platform, out of which only a few rocky points project.

Cape Kater to Anvers Island

3.5 **Lanchester Bay** (63˚55'S., 60˚06'W.) is entered between Wennersgaard Point, located 5 miles SSW of Cape Kater, and Havilland Point, 7 miles WNW. Chanute Peak stands on the E side of this bay and Temple Glacier covers the E side of Wright Ice Piedmont which extends to **Cape Andreas** (64˚00'S., 60˚43'W.), 20 miles W.

Cape Page is located 2 miles W of Havilland Point. Short Island lies close offshore, 3.5 miles further SW.

The **Palmer Archipelago** (64˚15'S., 62˚50'W.), consisting of a number of islands, lies off the **Davis Coast** (64˚00'S., 60˚00'W.). The principal islands are Tower Island, Trinity Island, Hoseason Island, Liege Island, Brabant Island, Anvers Island, and Wiencte Island. These islands are separated from the mainland by a continuous channel which, from N to S, bears the names **Orleans Strait** (63˚50'S., 60˚20'W.), **Gerlache Strait** (64˚30'S., 62˚20'W.), and **Bismarck Strait** (64˚51'S., 64˚00'W.).

Depths of up to 366m are reported to lie 7 miles N of the extremities of the islands. Gerlache Strait is clear in the vicinity of Brabant Island and has depths of 212 to 914m. Shoaling occurs in the vicinity of Anvers Island and the depths decrease to less than 180m in some places within the strait.

Tower Island (63˚33'S., 59˚51'W.), 305m high, lies 10.5 miles N of Cape Kater.

Condyle Point (63˚35'S., 59˚48'W.) is located 1.5 miles E of the S extremity of this island; Cape Dumoutier is located 2.3 miles farther NE. Foul ground fringes the E, S, and W sides of this island and extends up to 1.5 miles offshore. A foul ground area also fronts the N side of the island. It is about 2.5 miles wide and extends up to 5 miles seaward.

Dumoulin Rocks (63˚26'S., 59˚47'W.) lie close N of Cape Leguillou. Kendall Rocks, consisting of several pillar-shaped islets, lie 5 miles NNE of Tower Island and have been reported to attain a height of 133m.

Ohlin Island, 170m high and 1.5 miles long, lies 5 miles WNW of Tower Island. Two islets and a below-water rock lie centered about 1 mile W of this island. Three islets and a below-water rock lie between 2 and 3 miles WSW of the island.

Caution.—The area lying ESE of Tower Island has not been completely surveyed and vessels should exercise great care when navigating in this vicinity.

3.6 **Gilbert Strait** (63˚38'S., 60˚16'W.) separates the dangers lying W of Tower Island from **Cape Neumayer** (63˚42'S., 60˚34'W.). An air survey (1957) of the strait and the area lying between Tower Island and Cape Kater revealed the existence of many uncharted dangers. However, a survey (1984) reported that a passage, 3 miles wide and clear, leads through the strait.

A research vessel reported (1977) that a clear passage led through Gilbert Strait along the meridian of 60˚28'W, but passed through unsurveyed areas.

Trinity Island (63˚45'S., 60˚44'W.), 15 miles long and 7.5 miles wide, lies 20 miles W of Cape Kater. Tower Hill, its summit, is 1,125m high and formed by a distinctive sharp cone. Huemul Island, 186m high, lies close off the rugged NW extremity of Trinity Island.

Three small islets, surrounded by foul ground, are reported to lie about 3.5 miles NE of Cape Wollaston, the NE extremity of Trinity Island. A dangerous area, about 1.5 miles in diameter, is reported, existence doubtful, to be centered about 3 miles ENE of this cape.

Several dangers are reported to lie up to 5 miles seaward of the W coast of Trinity Island. The SW part of the island is formed by an ice-covered tableland, the S extremity of which is known as Stottsburg Point. Spert Island, 160m high, lies close W of the W extremity of the island and several above and below-water rocks lie up to about 1.8 miles N and NW of its N end.

Farewell Rock (63˚52'S., 61˚01'W.), a rocky reef, lies close off the SW end of Spert Island; a beacon, formerly lighted, stands near its E end. A rock, awash, lies 2.5 miles WNW of this reef. Banks, with least depths of 31 and 44m, lie 6 miles SW and 9 miles WSW, respectively, of the beacon.

Caution.—Vessels are advised not to approach within 5 miles of the N shore of Trinity Island as the area has not been completely surveyed and foul ground is reported to exist.

3.7 Mikkelsen Harbor (63˚54'S., 60˚47'W.) indents the S coast of Trinity Island, E of Stottsburg Point. This inlet has general depths of 46 to 164m. Anchorage can be taken, in a depth of 82m, fine clay, on a bank lying about 0.5 mile from the glacier at the head. Anchorage may also be taken in a depth of 18m about 0.2 mile SE of D'Hainaut Island, which lies in the center of the harbor. The harbor provides shelter from winds from E, through N, to WSW, but a rough sea sets in during S and SW winds. Drift ice and bergs set in from the SW and frequent calving of the glacier often renders this anchorage undesirable.

Klo Rock, with a least depth of 1.5m and on which the sea breaks, lies in the middle of the harbor. In addition, several other rocks obstruct the approaches to the harbor. Two beacons, each 30m high, stand on an islet, 9m high, which lies near the middle of the harbor, on the W side.

Orleans Strait leads between Trinity Island and **Danco Coast** (64˚42'S., 62˚00'W.). This passage is about 4 miles wide, but is restricted to a navigable width of 2 miles. Vessels should pass to the S of the rocks lying off the SE side of Trinity Island but may pass either side of a rock located near the middle of the channel. A shoal, with a depth of 5.5m, was reported to lie about 2.5 miles SE of Awl Point, the SE extremity of Trinity Island.

Chionis Island (63˚53'S., 60˚38'W.), 127m high, lies about 1.2 miles SE of Trinity Island. A dangerous rock, existence doubtful, is reported to lie about 4.5 miles SE of this island.

A clear and navigable channel, 1.3 miles wide, leads through Orleans Strait. It passes S of Chionis Island and connects Gilbert Strait with Gerlache Strait.

Austin Rocks (63˚26'S., 61˚04'W.) lie centered about 13 miles NW of Trinity Island. This group attains a height of 42m and extends about 3 miles in a NE/SW direction.

Hoseason Island (63˚44'S., 61˚44'W.), 529m high, lies 19 miles W of Trinity Island and is marked by two snow-covered summits. Cape Barrow, the NE extremity of the island, is faced by a steep cliff and backed by gentle slopes which rise toward the N summit of the island. This cape is fronted by several rocks which extend up to 1 mile seaward. A below-water rock, existence doubtful, is reported to lie about 1.3 miles NNW of the cape. Cetacea Rocks and an islet, 66m high, lie centered 2.5 miles SE of the cape.

From Cape Barrow, the coast of the island extends 7 miles to Angot Point, its S extremity. Numerous small islets and rocks, both above and below-water, front the shores of this island.

Cape Possession, 259m high, is the W extremity of Chanticleer Island, which lies close off the W extremity of Hoseason Island. Numerous above and below-water rocks partially surround this island.

3.8 Intercurrence Island (63˚55'S., 61˚24'W.) is the northernmost and largest of the **Christiania Islands** (63˚57'S., 61˚27'W.). Babel Rock, 58m high, is one of two rocks which lie close N of this island and is surrounded by foul ground. The W and S shores of the island are fronted by foul ground which extends up to 2.5 miles seaward.

Small Island, 336m high and 1 mile in diameter, lies within the foul ground area close off the S shore. This island is reported to have a sphinx-like appearance when viewed from some directions. Several above-water rocks and a rock, awash, lie up to 1.5 miles SE of the island.

Two rocks, which break and are fringed by foul ground, are reported to lie about 5 miles E of Small Island. Chance Rock, a below-water rock, is reported to lie, position approximate, about 6 miles E of Small Island.

Diamonen Island, 171m high, is located 5 miles ESE of Small Island and a rock, 1.2m high, lies 0.8 mile NNW of it.

A shoal, with a depth of 11m, and a dangerous rock are reported to lie about 8 miles ESE and 1.5 miles W, respectively, of Small Island. A foul ground area, about 2.5 miles long, lies 7.5 miles NE of Intercurrence Island and extends in a N/S direction.

The Danco Coast is that portion of the Antarctic Peninsula forming the shore between Cape Kater and **Cape Renard** (65˚01'S., 63˚47'W.), 130 miles SW.

From Cape Kater, the Danco Coast trends 21 miles SW and W to **Cape Andreas** (64˚00'S., 60˚43'W.).

Cape Sterneck (64˚04'S., 61˚02'W.) is located 23 miles SW of Cape Andreas and the coast between is regular and unbroken. The shore is fringed by numerous small rocks, especially close N and S of this cape.

Cape Sterneck is formed by a bold and dark-colored cliff, 460m high. It is the NW extremity of a promontory and forms the SW limit of the Davis Coast. Monument Rocks, up to 55m high, lie 3 miles NNE of the cape and numerous small islets and rocks lie between them.

The Danco Coast appears as a continuous ice slope, broken only by several protruding rock masses. The plateau, rising farther inland, attains heights of 1,220 to 1,830m.

3.9 Hughes Bay (64˚13'S., 61˚20'W.), 22 miles long, irregularly indents the coast and recedes for about 8 miles. The shores of this bay are completely ice-covered except for several rocky headlands. The ice extends inland to the base of some irregular mountains which have steep, snow-free slopes.

Cierva Cove lies 6 miles SSE of Cape Sterneck and a hut surmounts its S entrance point. An islet lies 1 mile NW of the S entrance point. A beacon,38m high, stands on an islet lying 2 miles N of the S entrance point.

Brialmont Cove lies 4 miles SSW of Cierva Cove and is entered between Charles Point and Spring Point. Alcock Island lies on an area of foul ground which fronts the W side of Charles Point.

Good anchorage can be taken, in depths of 25 to 30m, about 0.3 mile NNE of Spring Point, but strong winds often blow from the SSE. Primavera, an Argentinean base station, is situated in the vicinity of Brialmont Cove.

Table of Contents

Midas Island, Moss Island, and Apendice Island, together with a number of shoals, lie up to 4 miles W of this stretch of coast and can be best seen on the chart.

Sprightly Island (64˚17'S., 61˚04'W.) lies 0.5 mile NW of Spring Point and Roget Rocks, surrounded by foul ground, lie 3.8 miles SW of it.

Tournachon Peak, 859m high, rises 1.5 miles SSW of Spring Point and is prominent.

Salvesen Cove (64˚24'S., 61˚20'W.) lies about 9 miles SSW of Spring Point and indents the coast for 2 miles. Ice rises in a series of terraces to the E of this cove. The S shore of the cove rises to a high, rugged ridge, with several rocky outcrops and ice-capped peaks, which extends inland to the plateau. Between Spring Point and this cove, the coastal ice cliff is fringed by numerous small, rocky islets. The S shore of the cove is formed by large glacier cliffs which extend NW for 7 miles to Cape Murray.

3.10 Cape Murray (64˚21'S., 61˚38'W.) is formed, in reality, by an island. This island has a number of extensive rocky exposures which are conspicuous and extend vertically down to the shore. Several islands, the largest being about 2 miles long, lie close off this cape and may best be seen on the chart.

Graham Passage, about 0.5 mile wide and 4 miles long, separates the Murray Island from the mainland. Cape Murray Bay, a small and sheltered harbor, is formed between Cape Murray and a small island lying close N. Anchorage may be taken, in a depth of 36m, within the E part of this harbor. However, deeper water lies in the W part and a depth of 110m with no bottom has been reported.

Reclus Peninsula (64˚33'S., 61˚47'W.), high and rocky, forms the W side of Charlotte Bay. The Gaston Islands, 58 and 80m high, lie 1 mile WNW and 1 mile NNW, respectively, of this peninsula. A beacon, 6m high, surmounts the higher island. Several shoals lie close SE of these two islands.

Cape Anna (64˚35'S., 62˚26'W.), marked by a beacon, is located 18 miles SW of the peninsula and **Wilhelmina Bay** (64˚38'S., 62˚10'W.), a large indentation, lies between them. The head of this bay is fronted by several rocky masses, with numerous valley glaciers, and an extensive ice cliff. Several large islands lie in the E part of the bay and Plata Passage, a navigable channel, leads between them and the high, ice-covered mainland.

Nansen Island, 6 miles long and the largest within the bay, lies 5 miles SW of the Reclus Peninsula; two small islands lie close off its N extremity.

Brooklyn Island lies 1 mile offshore, about 1 mile SE of Nansen Island. It is 3 miles long, high, and ice-covered. Wyck Island, 1 mile long, lies 1 mile S of the W extremity of this island.

Foyn Harbor (64˚33'S., 62˚01'W.) lies within Wilhelmina Bay. It is located on the E side of Nansen Island and is bordered by several small islands and rocks which lie on the E side of the entrance. Anchorage can be taken, in depths of 27 to 36m, rocky bottom with poor holding ground, in this harbor. However, this anchorage is not recommended due to the calving of the high glacier face and violent SE winds which have often been experienced in the bay.

Caution.—The tidal range in the vicinity of Nansen Island is about 1.3m. However, the tides are reported to be of a peculiar nature and very irregular.

3.11 Pelseneer Island (64˚39'S., 62˚13'W.), 2 miles long, lies in the center of the bay and about 2 miles from the head. This island has three summits, formed by needle-like peaks, from which icy slopes extend to the water's edge and terminate in vertical ice cliffs. A small island lies about 4 miles WSW of this island and is located in the center of the entrance of a wide cove.

Delaite Island, 2 miles long, lies 2 miles W of Nansen Island. A small islet and a below-water rock lie close off the S extremity of this island.

Emma Island, with several sharp peaks, lies 3 miles E of Cape Anna. A rock is reported to lie about 1 mile N of this island.

Louise Island, small and ice-capped, lies 1.5 miles ESE of Cape Anna.

Brabant Island (64˚15'S., 62˚20'W.) lies on the NW side of Gerlache Strait. It extends 33 miles in a N/S direction and is about 16 miles wide. The Solvay Mountains rise along the E side of the island. A rocky, ice-covered spur projects S from these mountains and ends in Mount Buckle, a conspicuous summit, 1,032m high. From Mount Buckle, the SE part of the island is formed by glacier slopes. Lagrange Peak, 452m high, stands 8 miles NE of Mount Buckle and backs a flat-topped, rocky headland.

Buls Bay indents the center of the E shore of the island and recedes for about 3 miles. A large glacier, Hippocrates Glacier, lies at the head of this bay and is fronted by several rocks. The rounded and prominent summits of the Solvay Mountains stand above the bay and attain heights of up to 1,590m at Cook Summit. D'Ursel Point, small and ice-free, forms the S entrance point of the bay. Although this bay has not been thoroughly surveyed, it was reported that anchorage could be taken close behind an island lying in the entrance. Strong winds, which sweep off the glacier at the head, have been experienced within this bay.

A large island lies close to the shore, about 3 miles NE of Buls Bay.

Lecointe Island (64˚16'S., 62˚03'W.), the largest of a group of three islands, lies 6 miles NE of Buls Bay. A light is reported to be shown on the N extremity of Guesalaga Island, the easternmost island of this group.

From Buls Bay, the coast trends generally NNE to Spallanzani Point, the NE extremity of Brabant Island, and is indented by several small bays and coves. Harry Island, steep and snow-capped, lies close to the coast in the vicinity of Spallanzani Point and has perpendicular cliffs on its W side. A small channel, with several arms, lies on the W side of this island and is not recommended for use. Bernard Rocks lie in the middle of this channel, between Harry Island and Spallanzani Point.

3.12 Two Hummock Island (64˚08'S., 61˚42'W.), lying 8 miles SW of Small Island, presents a convex appearance with a smooth snow mantle. Two pyramidal-shaped rocky nunataks project through the snow and their summits form a range which extends in the direction of the length of the island. The shore of

the island is formed by ice cliffs, fronted by narrow strips of bare rock at the water's edge. Wauters Point, the N extremity of the island, is formed by a conspicuous and snow-covered cape.

Auguste Island, 1 mile long, lies 3.5 miles NE of Two Hummock Island. It is flat-topped, with steep slopes, and is mostly free of snow. Landing may be made on the rocky shore of the NW part of this island.

Cobalescou Island lies 0.8 mile ESE of the SE extremity of Two Hummock Island. It is free of snow and has two flat summits, surmounted by broken rocks, each 26m high.

The Christiania Islands lie 5.5 miles NW of Two Hummock Island and are separated from it by Croker Passage. This passage deep, virtually clear of dangers, and joins Gerlache Strait, at its S end, being reported to be the safest and best approach to the latter channel. There is a 3m shoal reported to lie 4 miles SW of Two Hummock Island.

Liege Island (64˚02'S., 61˚55'W.) lies 4 miles NW of Two Hummock Island. The Brugmann Mountains, forming the highest land, rise in a steep range along the E side of this island. Neyt Point, a prominent projection marked by a beacon, is located on the E shore of the island, 1 mile SE of the N extremity, and marks the end of this range of irregular peaks. Mount Allo, 304m high, stands near this point. It is formed by a conspicuous sharp cone and is completely covered by snow. Anchorage can be taken about 1 mile SW of Neyt Point.

Moureaux Point, the N extremity, forms the seaward end of a narrow peninsula which is joined to the island by a rather high and narrow isthmus. Three islets lie about 1 mile offshore, close W of the point, and foul ground is located in this vicinity. A shoal patch, with a depth of 3.7m, is reported to lie, position approximate, about 2.5 miles NE of Moureaux Point.

Yoke Island, 72m high, lies 3 miles WSW of Moureaux Point and is surrounded by foul ground.

3.13 Chauveau Point (64˚05'S., 62˚02'W.), the SW extremity of the island, is bordered by numerous islets, rocks, and reefs. The channel leading between Liege Island and Brabant Island is obstructed by many islets and rocks. Davis Islet, the largest of these, almost entirely blocks the channel and forms two narrow passages. The N passage is about 0.3 mile wide and may be transited by small vessels. Such vessels should stay close to Liege Island in order to avoid the dangers fringing Davis Island. Several shoals front the S shore of this island and lie up to 0.5 mile seaward.

The N coast of Brabant Island trends generally NW for 7 miles then N for 5 miles to Duclaux Point, which forms the W entrance point of **Bouquet Bay** (64˚03'S., 62˚10'W.). This large bay is reported to be foul.

Cape Cockburn, the E extremity of Pasteur Peninsula, is formed by a high, rocky cliff. This cliff extends 5 miles to Cape Roux, the W extremity. Depths of less than 9m are reported to lie up to 1.5 miles off this stretch of coast and two rocks, awash, lie on a foul ground area, which breaks, about 4.5 miles NW of Cape Roux.

From Cape Roux, the W shore of the peninsula trends SW for 4 miles to Point Metchnikoff, the N entrance point of **Guyou Bay** (64˚05'S., 62˚35'W.). This bay recedes SE for about 3 miles and the land at its head is much lower than that in the N part of the peninsula. Claude Point, a prominent vertical rock, forms the S entrance point of the bay. This bay is encumbered with numerous awash, above, and below-water rocks. Foul ground fronts Claude Point and extends up to 1.3 miles offshore.

Astrolable Needle (64˚08'S., 62˚36'W.) stands 1 mile S of Claude Point. This pointed monolith, 104m high, is visible from a great distance.

From Claude Point, the coastal range rises as a snow-covered ridge and extends S for 8 miles to Mount Parry. This peak is 2,522m high and dominates this part of the coast.

Duperre Bay (64˚27'S., 62˚41'W.), 3 miles long and 1 mile wide, contains a large glacier which descends from the heights of the interior mountains.

The W shore of Pasteur Peninsula terminates in Lenaie Point. The W coast of Brabant Island is fronted by rocks and has not been thoroughly surveyed. Vessels navigating in this vicinity should exercise extreme care.

From Lenaie Point, the coast extends SE for 5 miles to Strath Point, the S extremity, above which stands Victoria Peak. This conspicuous summit is cone-shaped and 485m high.

From Cape Anna, the coast extends SW for 3 miles and is indented by **Orne Harbor** (64˚37'S., 62˚32'W.), a bay. This bay affords shelter from winds and swells. Anchorage can be obtained within this bay, but there is no protection from drift ice.

From Orne Harbor, the coast extends SW for 2 miles to where a conspicuous, black nunatak rises near the shore. It then trends 7 miles S and 3 miles W to **Beneden Head** (64˚46'S., 62˚42'W.). Steep glacial slopes extend into the interior, with occasional rocky outcrops, from this headland.

3.14 Errera Channel (64˚42'S., 62˚36'W.) separates Ronge Island from the mainland. Ronge Island lies with Georges Point, its N extremity, located 8 miles SW of Cape Anna.

Cuverville Island and Danco Island lie within this channel, 1.5 miles SE of Georges Point and 2.8 miles E of the S extremity of Ronge Island, respectively. Danco Island is fronted by rocks, which extend up to 0.2 mile offshore, and an above-water shingle patch lies 0.3 mile E of it.

Anchorage can be taken, in a depth of 26m, off the E part of the N end of Danco Island. However, vessels using this anchorage have reported some difficulty with icebergs being swept through the channel by the tidal current which attains a rate of 3 knots.

Mount Tennant, a conspicuous peak, is 688m high and rises in the N part of Ronge Island.

The Orne Islands and several above-water rocks lie on an area of foul ground which extends up to 1.3 miles N of Georges Point. Ferrer Rocks lie 1 mile W of Ketley Point, the W extremity of Ronge Island, and a shoal, with a least depth of 3.7m, is located close S of them. Useful Island, marked by a beacon, lies 2.8 miles W of Ketley Point and rocks extend up to about 1 mile ENE of it.

Andvord Bay (64˚50'S., 62˚39'W.) lies between Beneden Head and Duthiers Point, which is marked by a beacon, and extends 11 miles in a general SE direction. The S end of this bay is divided into two small inlets which trend E and S for about 2.5 miles. Depths within the main part of the bay are

Table of Contents

deep with the exception of a small indentation along the E shore, 5.5 miles SE of Beneden Head. Anchorage may be taken, as convenien, in depths of up to 73m. The shore at the head of the bay is formed by the cliffed face of a broken glacier which descends from the NE shoulder of Mount Theodore.

3.15 Neko Harbor (64˚50'S., 62˚33'W.), a small bay, indents the E shore of Andvord Bay. Two small coves lie on the S side of this bay at the base of steep slopes which ascend to the summit of Forbes Point. The harbor provides anchorage and has general depths of 55 to 90m. Shoals, with depths of less than 5.5m, fringe the shores.

A below-water rock, fringed by foul ground, lies close to the E shore of Andvord Bay, 3 miles NW of this harbor. Several coves indent the E shore of the bay to the S of Neko Harbor. A rock, awash, position doubtful, lies close off the N entrance point of the S of these coves.

Coughtrey Peninsula, which terminates to the N in Duthiers Point, separates Andvord Harbor from Paradise Harbor. Mount Hoegh, Dallmeyer Peak, and Mount Inverleith, 1,820m high, stand on this peninsula and slope S toward the plateau.

Waterboat Point (64˚49'S., 62˚51'W.) is located 1.5 miles SW of Duthiers Point. Small vessels may anchor SW of this point.

Presidente Gonzalez Videla, a Chilean base, is situated in the vicinity of Waterboat Point. It was reported (1973) to be closed.

A below-water rock, existence doubtful, is reported to lie between Useful Island and the NW end of **Lemaire Island** (64˚49'S., 62˚57'W.), 6 miles SSW. A beacon stands on Molina Point, the NE extremity of Lemaire Island. Aguirre Passage, which is deep, separates this island from Waterboat Point.

Paradise Harbor (64˚51'S., 62˚54'W.), a wide bay, indents the coast to the SW of Andvord Bay. It lies S of Lemaire Island and E of Bryde Island. Anchorage may be taken, in a depth of 82m, clay with poor holding ground, in the harbor. The head of the harbor terminates in Skontorp Cove.

Ice constantly moves through the passage leading between the mainland and Lemaire Island. It often changes direction with the two daily tides, which attain rates of up to 3 knots, and vessels anchored here should be on constant alert. However, the tidal currents prevent the ice in the bay from freezing, even in winter months.

A light is shown from a pyramidal-shaped tower, 4m high, standing on O'Neill Point, the N extremity of Lautaro Island. This island is 58m high and lies at the W entrance to Bryde Channel, 1.5 miles W of Lemaire Island. It was reported that this light is often unreliable and is obscured to the S by high land.

Leith Cove and Skontorp Cove indent the E side of Paradise Harbor. A beacon stands on Garzon Point, the S entrance point of Skontorp Cove. Coughtrey Peninsula projects from the N entrance point of this cove and a beacon stands at its N end. Anchorage can be taken, in a depth of 40m, rock, with good holding ground, within Skontorp Cove, 0.6 mile NE of Garzon Point.

Oscar Cove is entered between Garzon Point and Stoney Point, 1.5 miles W. A beacon, 7m high, stands on the latter point. Mascies Cove lies on the N side of Ferguson Channel, 1.5 miles W of Oscar Cove.

Almirante Brown, an Argentinean base, is situated in the vicinity of Coughtrey Peninsula.

Bruce Island (64˚54'S., 63˚08'W.), 320m high, lies in the W entrance of Ferguson Channel and is separated from a peninsula by a deep channel. Mount Banck, a prominent peak, stands on this peninsula. Boutan Rocks, up to 5m high, lie about 1.3 miles SW of this island.

3.16 Wiencke Island (64˚50'S., 63˚25'W.) lies SE of Anvers Island and is separated from it by Neumayer Channel. Throughout the length of this island, three mountain ranges slope in a SE direction down to Gerlache Strait. Nemo Peak, 955m, and Nipple Peak form the NE range. Wall Range rises in the center of the island. The Fief Mountains stand at the SW end of this range and include Savoia Peak, the summit of the island, which is 1,435m high. A striking, serrated range of mountains rises NW of the central range and is separated from it by a wide valley. This range has Noble Peak standing at its NE end and Jabet Peak standing at its SW end.

Vazquez Island (64˚55'S., 63˚25'W.), 103m high, lies close SE of Principal Point, the SE extremity of Wiencke Island. A rock, 0.3m high, lies about 0.5 mile SW of this island; a rock, awash, is located 1 mile W of it.

Fridtjof Island (64˚53'S., 63˚22'W.), 136m high, lies, along with two small islets, about 1 mile off the E coast of Wiencke Island. Bob Island, 145m high, lies 3 miles SSW of this island.

Capstan Rocks, up to 10m high, lie about 0.5 mile S of Bob Island. A framework beacon, equipped with a radar reflector, stands near the E extremity of these rocks.

Breakwater Island, 33m high, lies close offshore, 5 miles S of Cape Astrup, the N extremity of Wiencke Island.

Cape Astrup is formed by a bold, round, and black-colored headland which is surmounted by an even sheet of ice. This sheet flows into the water on both sides of the cape. A rock, with a depth of less than 1.8m, lies about 0.3 mile N of the cape.

Neumayer Channel, which separates Anvers Island from Wiencke Island and Doumer Island, is entered, at its NE end, between Felicie Point, the S extremity of Lion Island, and Cape Astrup.

3.17 Demoy Point (64˚49'S., 63˚32'W.), located 3.5 miles SW of Noble Peak, is the W extremity of a peninsula which forms the N side of Port Lockroy. Casabianca Island, 46m high, lies 0.2 mile offshore, 0.5 mile NE of the point. A beacon stands near the E side of this island and another beacon stands near the N extremity of the peninsula. Anchorage may be taken, in depths of 22 to 36m, about 0.2 mile NE of Casabianca Island or in a depth of 54m about 0.3 mile E of the same island.

Dorian Bay lies on the N side of the isthmus, at the root of the peninsula which forms the N side of Port Lockroy. This bay is difficult to enter and may only be used by vessels with drafts of less than 4m. There are depths of 5 to 5.8m within the bay, over a bottom of soft mud. A reef, which nearly covers at HW, extends almost entirely across the entrance to the bay from its W entrance point. A narrow channel, with a depth of 2.7m, leads between the E end of the reef and the E entrance point of the bay. A hut is reported to stand on the S shore of the bay. Another hut, with a marker, is reported to stand near the SW end of the bay. An airstrip situated in the vicinity of Demoy

Point is occasionally used. Anchorage can be taken, in a depth of 73m, about 0.2 mile E of the beacon standing on Casabianca Island.

3.18 Port Lockroy (64˚50'S., 63˚27'W.) (World Port Index No. 63100), lying on the W side of Wiencke Island and NE of Doumer Island, is one of the best harbors in this region. It affords good shelter, with moderate depths, in good holding ground. This harbor is entered between Flag Point, on the N side, and Lecuyer Point, 0.5 mile SSE, and extends E for about 0.8 mile. The W half of the S side of the harbor is encumbered by two islands and two islets. The passages leading between these obstructions are reported to be foul. Goudier Island, with Bills Island located close NE, lies close off a small peninsula on the SW side of the harbor. Two islets, both bare, lie about 0.4 mile W of Bills Island. A channel, 0.2 mile wide, passes N of these islets and into the inner part of the harbor, which can only be used by small craft. Alice Creek, in the inner part, has a reef extending E at least halfway across its entrance.

The ocean swell does not penetrate into the harbor and rocks protect it from drifting icebergs. However, loose ice may be experienced due to calving of the glacier face which skirts the harbor shore. Vessels may approach the harbor through either Neumayer Channel or Peltier Channel, which are usually ice-free due to the currents. The N shore is formed by steep ice slopes which descend from the serrated hills. These slopes have vertical faces at the water's edge, 140 to 185m high. The E shores are marked by Smith Point and Besnard Point.

Goudier Island is fronted by a wharf, 4.5m long, which has a least depth of 0.9m alongside; however, it is reported to be in poor condition. A cairn and a mast stand on this island and a beacon stands on Bills Island.

The outer part of the harbor provides anchorage, but the bottom is rocky and the holding ground is not good during E winds. When entering the harbor, vessels should pass to the N of the islands and then proceed along the ice edge of the N shore. Good anchorage may be taken, in a depth of 16.5m, mud, about 0.3 mile NE of Bills Island. Anchorage may also be taken, in a depth of 18m, mud, about 0.2 mile N of Besnard Point which is located at the E side of the harbor.

Port Lockroy is usually ice-locked until the middle of December, but it affords an excellent harbor during the months of January, February, and March. However, winds from the S may block the entrances with loose drift ice.

Doumer Island lies in the S entrance of Neumayer Channel and is separated from Wiencke Island by Peltier Channel. This island is dominated by a snow-covered pyramid, 508m high, which rises steeply from the head of South Bay.

South Bay is entered between Py Point, the S extremity of Doumer Island and Cape Kemp, 1.2 miles NW. An emergency box of provisions is situated in the vicinity of Py Point. A spit, with several rocks awash, extends up to 0.3 mile from the head of this bay. Anchorage can be obtained, in a depth of 35m, about 0.7 mile NNE or 0.5 mile NW of Py Point. A shoal patch, with a depth of 7.3m, lies about 0.6 mile ENE of the point.

Homeward Point, located 1.5 miles NNE of Cape Kemp, is the W entrance point of Security Bay. Gauthier Point, marked by a beacon, forms the NE entrance point of this bay and is the NW extremity of the island. A shoal patch, with a depth of 8.8m, lies about 1 mile NE of this point.

3.19 Cape Lancaster (64˚51'S., 63˚44'W.), the S extremity of Andvers Island, forms the S extremity of an ice-covered promontory which rises gradually to Mount Ancla. A chain of reefs extends up to 1.5 miles S from this cape.

Exposure Rock, 3m high and over which the sea breaks heavily in rough weather, lies about 0.6 mile S of the cape. A chain of rocks, which runs parallel to the coast about 0.2 mile offshore, extends from close E of the cape to about 0.6 mile E of it.

Strong eddies and overfalls have been reported to occur up to about 1.2 miles seaward of this cape, especially during NE winds.

Borgen Bay (64˚45'S., 63˚31'W.) indents the coast and recedes for about 2 miles. William Glacier lies at the head of this bay. From the bay, the coast trends E for 2 miles and then NE for 8 miles to Lion Sound. This stretch of the coast is bordered by sheer cliffs, many of which are so steep that snow cannot cling to them, and backed by several sharp summits. Billie Peak, 725m high, is the most prominent of these summits. Copper Peak, 1,125m high, rises 2 miles N of it and is green-colored.

Mount Francais, 2,821m high, is the tallest summit rising on Anvers Island and stands above and inland from this portion of the coast.

Lion Island (64˚41'S., 63˚08'W.), 411m high, stands 1.5 miles SSW of Iceberg Point. The entrances leading into Lion Sound are clear, but a reef extends about 1 mile SW from Felicie Point, the S extremity of this island. Two small islets lie close off the shore of Anvers Island, W of Felicie Point. A rock, with a depth of less than 1.8m, lies about 0.8 mile ENE of Hippolyte Point, the N extremity of the island. Dobrowolski Island lies close to the shore, 3 miles SW of Ryswyck Point.

Caution.—When navigating in the vicinity of Cape Lancaster, vessels should exercise extreme care as reefs, which do not break, have been reported to lie up to about 1 mile from the shore.

3.20 Ryswyck Point (64˚34'S., 62˚50'W.) forms the NE extremity of Anvers Island; Clifford Peak, 1,160m high, rises 4 miles W of it. Fournier Island lies 0.3 mile E of this point.

A group of islets and rocks, named The Waifs, lies in the middle of the S entrance to Schollaert Channel. Breakers have been observed to occur off the westernmost rocks of this group; foul ground lies between them and Fournier Island.

Chiriguano Light is shown from a framework tower standing on the southernmost islet of The Waifs.

A navigable channel leads between Ryswyck Point and Fournier Island and has a least depth, in the middle, of 20m. Vessels are advised to approach this channel from the N, steering a course of 168˚, and from the S, steering a course of 000˚. The channel leading E of The Waifs is deep, but vessels using it should keep at least 1 mile off the coast of Brabant Island. The fairway leading through Schollaert Channel is deep and clear of dangers, except for a rock, with a depth of less than 1.8m, which lies 0.2 mile NE of False Island.

Dallmann Bay separates Brabant Island and Anvers Island and forms the W entrance to Schollaert Channel. Several

Table of Contents

groups of low, snow-capped islands, which are surrounded by rocks, lie within this bay.

3.21 The **Melchior Islands** (64˚19'S., 62˚57'W.) lie in the center of Dallmann Bay between Mount Parry and The Hump. These islands consist of two groups, the West Melchior Islands and the East Melchior Islands, which are separated by The Sound.

The East Melchior Islands consist principally of two islands, Eta Island and Omega Island, which are separated by a narrow strait. Omega Island is 183m high and is the largest of the entire group.

Andersen Harbor (64˚20'S., 63˚00'W.)(World Port Index No. 63120), an indentation in the SW side of Eta Island, lies at the W end of this strait. The SW shore of this harbor is formed by the N extremity of Omega Island. The harbor is entered between Tripod Island, on the N side, and Pabellon Island, on the S side. A beacon is situated on Pabellon Island. The harbor extends E for about 0.5 mile and has depths of 9 to 54m. It provides anchorage in depths of 20 to 51m.

The strait leading between Eta Island and Omega Island varies in width from 90 to 180m. It is 0.5 mile long and has shallow depths. A strong tidal current sets in and out of this strait.

A number of rocks lie S of the East Melchior Islands and extend up to 0.4 mile seaward. During a recent survey, a below-water rock, fronted by foul ground, was reported to lie about 2.5 miles E of the NE extremity of Omega Island.

A foul ground area extends up to 1.3 miles N of the East Melchior Islands. Peace Island, the Tau Islands, and several small islets lie on this area.

A beacon, 4m high, stands on an islet lying 0.4 mile NW of the W side of Omega Island. Another beacon stands on an islet lying 0.5 mile S of Omega Island.

The West Melchior Islands consist of the large Lambda Island, lying on the N side, and the smaller Gamma Island, lying about 1 mile S. A chain of small islands and islets extends in a NE/SW direction and lies centered between these two islands. Delta Island is the northeasternmost of this chain, followed close SW by Alpha Island, Beta Island, and Kappa Island. Epsilon Island lies close NW of Alpha Island and the Theta Islands lie close NW of Kappa Island. Two harbors are formed by this chain; Inner Harbor lies S of Lambda Island, while Melchior Harbor lies N of Gamma Island.

Islets and rocks, both above and below-water, all surrounded by foul ground, lie 3 miles ENE, 2.5 miles NE, and 3 miles NNE of the E extremity of Lambda Island and are best seen on the chart.

Inner Harbor recedes for about 0.2 mile and has depths of 31 to 71m. It may be entered from The Sound. Foul ground extends up to about 140m N into the harbor from the N shore of Alpha Island and up to about 100m N from the NW shore of Delta Island. Moorings are available near the NE extremity of Alpha Island.

3.22 **Melchior Harbor** (64˚19'S., 63˚00'W.) (World Port Index No. 63110), a sheltered haven, is 0.5 mile long. It is enclosed, except on the E side, by Delta Island and may be entered from The Sound. Harpun Rocks, with a least depth of 4m, lie in the NE entrance to the harbor, close SE of the S extremity of Delta Island. Anchorage may be taken in the center of the harbor, in depths of 31 to 77m, clay, sand, or stones, with good holding ground. However, vessels may be inconvenienced by icebergs and drift ice.

A foul ground area extends up to 0.5 mile N from Lambda Island, the N of the W group. The Rho Islands, several in number, lie within this area.

The W entrances to Inner Harbor and Melchior Harbor have not been surveyed and strong tidal currents, which often bring large quantities of drift ice, are reported to set through them. Moorings are available on the N shore of Gamma Island, about 0.2 mile SW of Gallows Point, its NE extremity. A hut and a beacon are situated near Gallows Point. Anchorage can be taken with the summit of the island that lies between Gamma Island and Kappa Island bearing 239˚ and the beacon on Gallows Point bearing 125˚. Anchorage may also be taken about 0.2 mile N of this latter beacon.

The Sound runs in a N/S direction between the East Melchior Islands and the West Melchior Islands. When approaching this channel from the N, vessels should head for the center until clear of a group of rocks which breaks and lies about 0.2 mile off the E shore of Lambda Island. Vessels should then head for Gallows Point, the S entrance point of Melchior Harbor, until they are past Delta Island, when the haven will be open to full view. Harpun Rocks lie about 0.2 mile S of Bills Point, the S extremity of Delta Island.

3.23 **Gand Island** (64˚24'S., 62˚51'W.), flat and ice-covered, is 3 miles long and 1.5 miles wide. It lies about 3 miles SSE of the Melchior Islands. Several rocks and reefs lie within 0.5 mile of the S shore of the island and a small island, known as Manoury Island, lies 1.3 miles S of it. Gand Island forms the N entrance point of Schollaert Channel and lies on its E side.

From Hackapike Bay, the coast extends N for 0.8 mile to Andrews Point which forms the S entrance point of Discovery Sound. Three rocks lie close N of Andrews Point.

Guepratte Island is covered with snow and lies on the W side of Schollaert Channel, 1.8 miles W of Andrews Point. Numerous small islands front the E shore of this island. Several rocks and areas of foul ground extend up to 1 mile seaward of the E side of this island.

Discovery Sound leads S of Guepratte Island and connects Fournier Bay with Schollaert Sound. Phils Island lies close to the S extremity of Guepratte Island and rocks extend up to 0.2 mile W of it. A least depth of 18.3m was reported to lie in the channel 0.2 mile SE of East Point, the E extremity of Phils Island.

3.24 **Inverleith Harbor** (64˚32'S., 63˚00'W.), an inlet, recedes S for 2 miles and provides anchorage in a depth of 102m. A glacier is located at the head of this harbor and a large amount of drift ice often flows into it. Several small rocks lie along the N shore of Briggs Peninsula, at the E side of Fournier Bay. This bay is 8 miles long and 3 miles wide; a glacier fronts the head. A below-water rock lies near the middle of the entrance to this bay, 1.5 miles WNW of Briggs Peninsula. The W shore of the bay extends 10 miles N to an unnamed point of land, which has foul ground extending up to 1.5 miles N of it.

The Thompson Peninsula projects from the NE side of Anvers Island, on the W side of Dallmann Bay, and forms the NW side of Fournier Bay. A number of islets lie close off its seaward extremity. Patagonia Bay lies between the Thompson Peninsula and the Gourdon Peninsula, 2 miles NW. The latter peninsula forms the SE shore of Lapeyrere Bay. Pyramid Rock, 40m high, lies close off the NE extremity of the Gourdon Peninsula and The Hump rises on the N side of Lapeyrere Bay.

D'Abnour Bay is small and lies close W of **Cape Bayle** (64˚17'S., 63˚10'W.), the NE extremity of Anvers Island. From Cape Bayle, the N shore extends W for 10 miles to Cape Gronland, the NW extremity of the island. D'Abnour Bay is obstructed by many rocks and shoals.

The N shore of the island is fringed by numerous rocks and small snowy islands, with the most prominent being the **Lajarte Islands** (64˚14'S., 63˚24'W.), which extend up to 2.5 miles N from the coast. Breakers and foul ground are reported to extend up to about 5 miles N of these islands.

The W coast of Anvers Island is frequently obscured by fog and low clouds. Many rocks and snow-covered islands lie off the coast and up to 4 miles offshore. Approach to this stretch of coast is hazardous, except during periods of good visibility.

From Cape Gronland, the W coast of the island extends SW for 31 miles to Cape Monaco. The Paul Islands, a group of five islands, lie about 4 miles W of Cape Gronland.

Perrier Bay indents the W coast, 8 miles SW of Cape Gronland. The N entrance point of this bay is formed by Quinton Point and the S entrance point is formed by Giard Point. Hamburg Bay lies SW of Perrier Bay and is separated from it by a peninsula, 4.5 miles wide. Bonnier Point forms the W extremity of this peninsula. A chain of rocks, 2 miles long, extends NE from the S side of Hamburg Bay to beyond Perrier Bay. Gerlache Island lies 7 miles SW of Hamburg Bay. An extensive patch of below-water rocks, which break heavily even in calm weather, lies 2 miles N of this island.

Cape Monaco is located 8 miles SSW of Gerlache Island. The shore between is fronted by the Rosenthal Islands, which extend up to 1.5 miles seaward. The N of this group of islands is conspicuous. Numerous dangerous rocks, surrounded by breakers, lie in an area, with a diameter of 0.8 mile, centered about 4 miles NNW of Gerlache Island.

3.25 Cape Monaco (64˚42'S., 64˚15'W.), the W extremity of Anvers Island, is fringed with numerous small islands and rocks which extend up to 10 miles SW. Large icebergs are frequently grounded in the vicinity of these obstructions.

The Gossler Islands lie close off the cape. Buff Island, the outermost of this group, is formed by a steep rock, 33m high, with a sheer N side. It is very prominent and radar conspicuous.

Lenie Passage, which is deep and has a least width of 0.8 mile, leads between the Joubin Islands and the Gossler Islands. Numerous dangers lie close to the shores on each side of this passage.

At the E end, the dangers on the S side include Beaumont Skerries, which lie 3.5 miles S of Cape Monaco, and Scend Rock. The sea breaks heavily over Scend Rock and a rock, awash, lies 0.3 mile S of it. The dangers on the N side of the passage include shoal patches, with depths of 14 and 16m, and Rumbler Rock, which lies 4 miles SE of Cape Monaco.

At the W end of the passage, a shoal patch, with a depth of 8.5m, lies 5 miles W of Cape Monaco. This passage should be used in good weather as the water is smooth and the detour round the Joubin Islands can be avoided.

A conspicuous rock, upon which the sea breaks heavily, lies about 2.5 miles SE of Cape Monaco. A shoal, with a depth of 16.2m, lies about 2 miles S of the cape and a shoal, with a depth of 4.9m, lies about 3 miles W of the Gossler Islands.

Bonaparte Point is located 7 miles SE of Cape Monaco. The coast between is fronted by many small islands which lie up to 3 miles offshore. Two oil tanks are reported to stand on a small peninsula which is located 0.5 mile NE of Bonaparte Point. A small pier is situated on the S side of this peninsula. This pier can accommodate vessels of up to 5.4m draft, but lacks mooring facilities for large vessels.

Shortcut Island lies 0.8 mile ESE of Bonaparte Point. This island is separated from Anvers Island by a deep and narrow channel which provides a direct route between Arthur Bay and Biscoe Bay. A shoal, with a depth of 14.6m, lies about 1.3 miles SW of Halfway Island. Breakers were reported to occur about 1.5 miles NNW of Halfway Island. Vessels have anchored, in a depth of 36m, about 0.3 mile offshore, 7 miles SE of Cape Monaco.

3.26 Arthur Harbor (64˚46'S., 64˚04'W.), an inlet, lies between Bonaparte Point and Norsel Point, 1.2 miles NNW. It is fronted by six large islands and numerous islets and rocks. Torgersen Island lies 0.2 mile NW of Bonaparte Point. A beacon stands on this island, but it was reported (1992) to be destroyed. Elephant Rocks partly uncover and lie close N of this island.

Palmer Station (64˚46'S., 64˚04'W.), a United States base, stands on a small area of bare rock on Anvers Island, adjacent to Arthur Harbor. This base consists of a main laboratory building, a second major building, and several smaller structures. It has a helicopter landing pad, a dock, and two large fuel tanks.

The base is operated by the U.S. National Science Foundation in order to support scientific research, with an emphasis on marine biology. This base was designated (1991), along with its surroundings within 2 miles, as a Long Term Ecological Research Site. Any disturbance of the islands, waters, or wildlife at this site would be detrimental to the research. Vessels that have obtained prior approval to approach the site should contact the base 24 hours to 72 hours in advance for permission to anchor.

In January 1989, the Bahia Paraiso, an Argentinean vessel, struck a rock when leaving Arthur Harbor and proceeding W between DeLaca Island and Litchfield Island. The vessel drifted to a location lying immediately E of DeLaca Island, where it sank in shallow water, about 1.1 miles SW of the base. The hulk was reported (1992) to be lying on the bottom with a small portion visible at LW. It was also reported (1992) that there were plans to remove the fuel from the tanks of this vessel. The hulk is expected to remain indefinitely.

Litchfield Island, the largest island fronting Arthur Harbor, lies 0.2 mile W of Torgersen Island. Many dangerous ledges and pinnacle rocks extend SW from the S extremity of Litchfield Island. A dangerous rock lies 0.3 mile SSW of the S extremity and a shoal, with a depth of 3.3m, lies close E of it.

Table of Contents

Humble Island and Breaker Island lie 0.4 mile and 0.8 mile, respectively, NW of Torgersen Island. Shallow depths front the W side of Torgersen Island and lie up to 0.1 mile offshore.

Arthur Harbor is easily entered; anchorage may be obtained, in a depth of 18m, clay, about 0.5 mile NNE of Bonaparte Point. It would be difficult for more than one vessel to anchor at the same time within the harbor due to its small size and many obstructions. The approach to the harbor, which lies between Hermit Island and the Outcast Islands, is not recommended.

A vessel, with a draft of 8.2m, has safely used the following described route. Starting from a position with Buff Island bearing 000˚ distant 3 miles, the vessel steered a course of 090˚ for 9.6 miles and then a course of 003˚ for 6.1 miles. When the left tangent of Halfway Island was bearing 003˚ distant 2.5 miles, the vessel then steered a course of 090˚ and passed midway between Janus Island and Spume Island until the right tangent of the former island was bearing 000˚. The vessel then steered a course of 038˚ toward the anchorage.

Caution.—A primary difficulty encountered in the approach to the harbor was reported to be the inability to correctly identify Halfway Island. Difficulty was also encountered in identifying Spume Island.

3.27 Biscoe Bay (64˚48'S., 63˚50'W.) is entered between an unnamed point, located 4 miles ESE of Bonaparte Point, and Biscoe Point, 3.5 miles ESE. The latter point is formed by a jagged and rocky peninsula on which a penguin rookery is situated. Access Point is located 0.8 mile SE of Biscoe Point. Shortcut Island lies 0.8 mile ESE of Bonaparte Point and is separated from Anvers Island by a deep, narrow channel which provides a direct route between Arthur Bay and Biscoe Bay. Several indentations, which might provide sheltered anchorage, lie on each side of the peninsula.

The **Wauwermans Islands** (64˚55'S., 63˚53'W.) lie 4 miles SW of Cape Lancaster. This group consists of numerous islands which extend in an E/W direction for about 9 miles. The islands are 9 to 91m high and are covered with snow. Water is available from streams on some of these islands during the summer months.

Wednesday Island, the E of the group, is almost circular, with a diameter of about 1.5 miles. The NE extremity of this island lies 3 miles WSW of Cape Errera. Brown Island lies 2 miles S of Wednesday Island and is small, brown, and almost free of snow. A reef, marked by breakers, extends up to about 1.5 miles S and SSW from this island. A dangerous rock, awash, lies about 1 mile S of the island.

Hazard Rock, isolated, small, and marked by a beacon, is 0.9m high and lies 2 miles SE of Brown Island. This rock forms an extreme danger in low visibility as it may easily be mistaken for floating ice and is not radar conspicuous. A dangerous rock lies about 0.5 mile N of Hazard Rock.

A light is shown from a structure standing on Tangent Island, the NW island of the group, which lies 6 miles WNW of Wednesday Island. Menier Island lies 4 miles S of Cape Errera and the Puzzle Islands lie 2 miles W of it. Numerous dangers lie in a chain that extends up to 1.5 miles NW of Menier Island and includes several islands, reefs, and shoals.

3.28 Butler Passage (64˚58'S., 63˚44'W.) leads between the E side of the Wauwermans Islands and the W side of the Puzzle Islands. The N entrance of this passage is formed by the junction of Bismarck Strait, Neumayer Channel, and Peltier Channel. The passage leads SW to the N entrance of Lemarie Channel, about 2.5 miles W of Cape Renard.

Bismarck Strait, at its W end, leads from seaward and separates the SW side of Anvers Island from the Wauwermans Islands, about 5 miles S. The strait has a width of about 3 miles between Exposure Rock, lying S of Cape Lancaster, and the northeasternmost of the Wauwermans Islands. It is mostly deep, but care is necessary when navigating in this vicinity as isolated shoals rise steeply on each side of the fairway channel. Bismarck Strait leads NE to Neumayer Channel and Gerlache Strait, and SSW through Butler Passage and Lemarie Channel.

Cape Willems to Darbel Bay

3.29 Flandres Bay (65˚02'S., 63˚20'W.), a large indentation, lies at the S end of the Danco Coast between **Cape Willems** (64˚57'S., 63˚16'W.), its NE entrance point, and Cape Renard, its SW entrance point. Between these capes, the bay has a width of about 11 miles, but it narrows toward the head which lies 15 miles SE. Numerous rocks and reefs front the shores of this bay.

The Moureaux Islands lie 3 miles from the head and 3 miles E of Rahir Point, a rocky promontory, which forms the W entrance point of the inner part of the bay. These islands are low, snow-covered, and are connected by moraines, which at times appear above the sea.

The Guyou Islands and a shoal, with a depth of 10.9m, lie about 4 miles and 5.3 miles, respectively, WNW of Rahir Point. Swan Rock, 2.4m high, lies in the NE entrance of the bay, about 1.8 miles SSW of Cape Willems.

The head of the bay is narrowed to a width of about 4 miles in the vicinity of Rahir Point, which projects N from the S shore. Beyond this point, the inner part of the bay contains several small inlets. Briand Fjord, the N fjord, is 2 miles long and 1 mile wide. Etienne Fjord indents the coast in the SW part of the inner bay. It is 4 miles long and has an entrance about 1.5 miles wide. Thomson Cove indents the E side of Rahir Point. It is about 1 mile long and 1.5 miles wide.

The W side of a peninsula trends S for 2 miles and forms the E shore of Lauzanne Cove. From the W entrance point of this inlet, the S shore of Flandres Bay extends W for 1.5 miles to Sonia Point, a distinctive rocky projection. From this point, the coast extends NW to an unnamed point which forms the E entrance point of Hidden Bay. This stretch of shore is indented by four small bays. An extensive foul ground area extends up to 1.5 miles seaward of the entrance to this bay and many small islets lie on it. The shore then extends SSW for 4 miles to the head of Hidden Bay and then trends N for about 3 miles to Cape Renard.

Cape Renard (65˚01'S., 63˚46'W.) is a conspicuous headland, 740m high. This cape is marked by two steep needles, the slopes of which are too precipitous for snow to cover them. A light is shown from the E side of the cape.

The **Dannebrog Islands** (65˚03'S., 64˚08'W.) consist of a chain of islands and rocks lying S of the Bismarck Strait. This chain extends WSW for 20 miles from a position located about

5 miles W of Cape Renard. The Dannebrog Islands group also includes several large islands lying E of the above chain which are separated by Lemaire Channel. The area in the vicinity of the Dannebrog Islands has not been completely surveyed. However, Nimrod Passage, which separates these islands from the Wauwermans Islands, is mostly deep and has a width of at least 0.8 mile, except for a shoal, with a depth of 14.6m, lying in the middle of its E end. Numerous dangers, which may best seen on the chart, lie between 22 and 31 miles W of Cape Renard.

3.30 Booth Island, the largest of the Dannebrog Islands, lies with Turquet Point, its N extremity, located 5 miles WSW of Cape Renard. This island is high, rugged, and consists of two rocky masses joined by a low, narrow peninsula of ice and snow. Gourdon Peak (Wandel Peak), 979m high, rises in the S part of the island. Two spurs extend N from this peak and fall steeply to the sea, enclosing a beautiful glacier between them. The W of these spurs forms a peninsula on the N side of which lies, Port Charcot, a small bay. Jeanne Hill, 193m high, and Louise Peak, 625m high, stand on this peninsula. A large penguin rookery is reported to be situated on the slopes of Jeanne Hill.

Francais Cove, a small creek, lies at the head of Port Charcot between Vanssay Point and Cholet Island.

Splitwind Island (65˚02'S., 63˚56'W.), with a group of rocks lying NE and SE of it, is located 0.5 mile NE of Turquet Point.

Port Charcot (65˚04'S., 64˚00'W.) indents the N side of Booth Island. This bay has depths over 25m lying W of Vanssay Point, but the bottom is rocky and the holding ground is very poor. This harbor offers protection from all winds except NE gales which raise a rough sea.

Hovgaard Island lies close SW of Booth Island and extends for 3 miles in a NE/SW direction. The shores of this island consist mostly of steep, vertical cliffs. A small peninsula forms the S extremity of the island, off which a number of rocks lie. A rock, which breaks, is reported to lie midway between Hovgaard Island and Petermann Island.

Pleneau Island, 54m high, lies close off the NE extremity of Hovgaard Island. A shoal area, with rocks that break, is reported to lie within 0.2 mile E of the E end of this island. A penguin rookery is situated on the NE end of the island.

Anchorage was obtained, in a depth of 49m, rock, within the channel leading between Pleneau Island and Booth Island. Anchorage was also taken with Gourdon Peak bearing 070˚, distant 1 mile. The islands lying around this anchorage afford good protection from all seas except those from the W.

The Vedel Islands lie 2 miles W of Hovgaard Island. This group consists of numerous islands and rocks, but has not been surveyed. A chain of rocks extends NE for 2 mile from this group and another group of rocks lies between 1 and 2 miles S of it.

A beacon, 6m high, is reported to stand on one of the Stray Islands, a small group, which lie S of the Vedel Islands and W of Petermann Island. Numerous dangers lie W, NW, and N of the Vedel Islands and extend up to about 5 miles seaward.

3.31 **Petermann Island** (65˚10'S., 64˚10'W.) lies 1 mile SSW of Hovgaard Island. Clayton Hill, a rocky mass, is 102m high and rises in the N part of this island. A beacon surmounts this hill and another beacon stands on the S end of the island. Port Circumcision, a small inlet, indents the E side of the island and has depths of 5 to 8.2m. A large cairn stands on Megalestris Hill, a rocky hillock, which is 35m high and rises in the S part of the island.

The E part of the N shore of the island is fronted by foul ground, while the W shore is mostly clear. Several islands lie S of Petermann Island. The largest of these are Charlat Island, Thiebault Island, and Boudet Island. A beacon stands on the SE end of Boudet Island and below-water rocks lie between this island and Herald Reef, 0.8 mile WSW.

Petermann Island may be approached through French Passage, Penola Strait, or Lemaire Channel. However, vessels should approach Port Circumcision from the SE. Anchorage can be taken to the S of Boudet Island, in a depth of 33m, rock, with the right tangent of Herald Reef bearing 277˚ and the beacon on Petermann Island bearing 004˚. This anchorage is protected to the E by the Graham Coast and somewhat to the W by the numerous small islands and reefs.

3.32 From Cape Renard, the coast extends SW for 13 miles and forms the E shore of Lemaire Channel. This stretch of coast is formed by steep cliffs, up to 610m high, which rise vertically from the water. Deloncle Bay, lying 6 miles SW of Cape Renard, forms an indentation in a glacier which rises steeply to the E. Loubat Point and Glandaz Point form, respectively, the N and S entrance points of this bay. Girard Bay lies 3 miles SW of Glandaz Point. Mount Cloos, snow-covered and dome-shaped, rises on the N shore of Deloncle Bay. A sharp, cone-shaped hill, 981m high, rises close W of this peak and has steep, bare, and rocky slopes.

The S shore of Girard Bay is formed by the high cliffs of Mount Scott, a rocky mass, which is in the form of a horse-shoe. Duseberg Buttress rises opposite Petermann Island and is conspicuous. It consists of a rocky cone, 500m high. From this cone, the coast extends S and forms the E shore of Penola Strait. A beacon stands on Redondo Point, which is located 2.3 miles S of Duseberg Buttress.

Waddington Bay (65˚16'S., 64˚05'W.) is entered between Rasmussen Island and Cape Tuxen. Cape Tuxen is indented by several coves and surmounted by the steep slopes of Mount Demaria. This peak is 638m high, free of snow, and conspicuous. It stands perpendicular and resembles a crouching cat.

The Yalour Islands, a group of islands and rocks, lie in the middle of Penola Strait with a navigable channel passing on either side. The channel leading E of the group has not been surveyed and dangers may lie within it. The W side of the group is fringed by foul ground.

A rock, 2m high, lies about 2 miles W of Cape Tuxen and Barros Rocks lie 0.4 mile S of it.

French Passage leads between Dannebrog Islands, to the N, and the Roca Islands and the Argentine Islands, to the S. This passage is believed to be clear of dangers; however, numerous pinnacle rocks and reefs lie in this vicinity and great care should be taken.

An above-water rock, with a below-water rock lying close NW of it, is located near the approach to French Passage, about 4 miles NE of the largest of the Gruls Islands. Two small islets,

Table of Contents

fringed by foul ground, are reported to lie, existence doubtful, about 4.5 miles W of the largest of the Gruls Islands.

3.33 The **Argentine Islands** (65˚15'S., 64˚16'W.) are the first group in an extensive chain of islands which extends in a WNW direction for about 12 miles. This group lies 3 miles from Cape Tuxen and consists of an archipelago of islands, the largest having a diameter of about 0.7 mile, which are fringed by many rocks and reefs. None of these islands rise to a height of more than 65m. The islands in the group are separated by several narrow channels, through which swift currents run with many eddies.

The Argentine Islands can be divided roughly into seven groups. The five principal islands of the N group are Irizaro Island, Uruguayo Island, the two Corner Islands, and Grotto Island. Anchorage was obtained, in a depth of 31m, rock, off Irizar Island.

A group of islands lies SSW of the N group and is separated from it by Meek Channel. Galindez Island is the NE of this group; Skua Island is the SW. Winter Island almost fills the entire bight lying between the W side of the former island and the N side of the latter island. A disused hut is situated on the SE extremity of Winter Island. A beacon is reported to stand on the W end of Winter Island.

Galindez (Faraday), a British base, is situated on the peninsula that forms the NW end of Galindez Island. Marina Point is the NW extremity of this peninsula.

Meek Channel, with a least depth of 7.9m, leads between Corner Island and the NE side of Galindez Island. Corner Rock, with a least depth of 2.1m, lies in the E entrance and restricts the use of this channel to vessels of less than 60m in length. A reef, with a least depth of 2.1m, lies close off the NW part of Galindez Island. Thumb Rock lies at the SE end of the reef; Indicator Island lies on its SW part; and two islands, known as The Buttons, lie on its N part. A narrow channel, with a least depth of 8.5m, leads between the reef and the NW part of Galindez Island. A deep channel, reported to be clear of dangers, leads between the reef and the N side of Winter Island. These two channels lead to Skua Creek which separates Galindez Island from Winter Island.

3.34 **Skua Creek** (65˚15'S., 64˚16'W.) has a least depth of 4.6m in its N part and 0.9m in its S part. However, its S entrance is shallow and obstructed by numerous rocks. Cornice Channel separates Galindez Island from Skua Island. The N end of this passage is narrow and has a depth of 1.2m. The channel leading between Winter Island and Skua Island, which is known as Skua Creek, has depths that decrease from 20m at the NW entrance to 2.4m at the SE end. The SE end of this channel is also obstructed by foul ground. The NW entrance is narrowed by a bank extending from its NE side on which a rock, with a depth of 2m, lies.

A number of islands and above-water rocks lie up to 0.2 mile seaward of the W side of Skua Island. In addition, several shoals have been observed from the air to extend up to about 0.2 mile S from the S side of this island.

The NW part of the Argentine Islands contains three groups of islands. The N of these groups is the Forge Islands, the central group is the Three Little Pigs, and the S group is the Shelter Islands. Several above and below-water rocks lie in the channel leading between the Horseshoe Islands and Grotto Island.

The SW group of the Argentine Islands consists of two principal islands; Black Island is the SE island and Leopard Island is the NW island. Numerous above and below-water rocks front all the islands in this group. Black Island Channel, which leads between Skua Island and Black Island, is 180m wide, deep, and clear of dangers in the fairway. However, Runciman Rock, which is marked by breakers, lies in the middle of the S approach to this channel, about 0.2 mile E of Black Island. Shoals extend up to about 0.2 mile SE and S from Finger Point, the SW extremity of the island. A shoal, with a depth of 2.1m, lies about 0.3 mile E of Runciman Rock.

An area, which is about 0.5 mile long and 0.2 mile wide, lies with Winter Island and Skua Island, on its SE side, and the Three Little Pigs and the Shelter Islands, on its NW side. This area has depths of 14 to 34m. The channel, which leads to this area from Black Island Channel, passes between Skua Island and Shelter Island. It is deep and clear of dangers in the fairway.

The W group of the Argentine Islands consists of The Barchans, four principal islands. These islands are snow-capped and fronted by a number of islets and rocks. A beacon stands on the NW extremity of the NW island. Several isolated rocks and reefs lie up to 3 miles S of this group.

Anchorage can be obtained, in a depth of 23m, about 0.2 mile S of the central of the Three Little Pigs. Anchorage can also be obtained, in a depth of 31m, within the NW part of Meek Channel, E of Channel Rock. Both of these anchorages are protected from the swell, but drift ice may be troublesome. Small vessels may find good shelter within Stella Creek. The best approach to Stella Creek is via Black Island Channel, which passes between Skua Island and Shelter Island. Vessels proceeding to Stella Creek from the E by way of Meek Channel should keep close to the S side of the W of the Corner Islands in order to avoid Corner Rock.

3.35 **Barros Rocks** (65˚17'S., 64˚12'W.), a group of small islets, lie in a crescent-shaped chain about 3 miles W of Cape Tuxen. A rock, 1.8m high, lies, position approximate, lies about 0.5 mile N of this chain.

The Berthelot Islands lie centered about 4 miles S of Cape Tuxen. This group consists of three small and barren islands, the largest being 166m high. Numerous rocks lie between this group and the mainland. A rock, which breaks, is reported to lie about 2.5 miles W of the largest of the Berthelot Islands. Gaunt Rock lies 2.8 miles NNW of this rock and a shoal, with a depth of 11m, is reported to be located close NE of it. Shoals, with depths of 13.7 and 14m, lie 0.5 mile NW and 3 miles W, respectively, of this rock.

A foul ground area, which is about 0.8 mile in diameter, lies 8.5 miles W of Cape Tuxen.

Darboux Island, 270m high, lies 3 miles W of Cape Perez. It has precipitous sides and a conical, snow-clad summit. A small group of islands lies about 1 mile N of this island. Somerville Island lies 2.5 miles NW of Darboux Island. This island is located within an area of islets and rocks, about 2 miles in diameter. Gedges Rock and Grim Rock lie 10 miles W and 10 miles WSW, respectively, of the Berthelot Islands. A group of islands and rocks lies centered 6 miles SW of Grim Rock.

A shoal, with a least depth of 2.4m, lies 0.5 mile NW of Gedges Rock.

The Betbeder Islands, a group consisting of three main islands and three rocks, lie centered 22 miles W of Cape Tuxen.

A reef, almost awash and breaking, is reported to lie about 1 mile S of the W island of the Betbeder Islands. Another reef extends about 0.3 mile N from the largest island of the group.

Sooty Rock and Lumus Rock lie 3 miles and 7.8 miles, respectively, WNW of Betbeder Island. A shoal patch, with a depth of 9.7m, lies about 2.5 miles NNE of the Betbeder Islands. Sooty Rock is 18m high and breaks heavily.

A group of rocks lies between 4 and 6 miles N of the Betbeder Islands. A survey reported that two isolated shoals, with depths of 23.8 and 27.4m and surrounded by foul ground, lie about 4.3 miles NE of the W of the Betbeder Islands. A danger to navigation, existence doubtful, was also reported to lie about 1.8 miles NW of the W island of this group.

A below-water rock is reported to lie, position approximate, about 0.5 mile S of Sooty Rock. An isolated shoal, with a depth of 11m, lies about 6 miles NNW of the E extremity of Sooty Rock.

Caution.—Vessels navigating in this area are advised to exercise great care due to the numerous dangers and obstructions.

3.36 Beascochea Bay (65˚30'S., 64˚00'W.), 14 miles long, varies in width between 1 and 6 miles. Cape Perez, the N entrance point of this bay, is prominent due to its high, perpendicular cliffs. These cliffs are formed of pink granite and are surmounted by two summits, 310 and 500m high, in front of which a sharp, conical peak rises.

Deniau Island (65˚27'S., 64˚19'W.), with several islets lying close NE of it, is located in the entrance to Beascochea Bay. This island along with the Lippmann Islands, Lahille Island, Tot Island, and the Edwards Islands all lie within 6 miles of the NW end of the Takaki Promontory.

Leroux Bay is wide and extends for about 7 miles SE. It is bordered on the NE side by the ice-covered peninsula which forms Nunez Point. The entrance to the bay is reduced in width by the location of Lahille Island. The E entrance is 2 miles wide and lies between Lahille Island and Nunez Point. The W entrance is 3 miles wide and lies between Lahille Island and a group of three islands which are located 1 mile E of Chavez Island.

Chavez Island is separated from the mainland by a narrow channel, in which strong currents have been observed. This island rises in ice-covered slopes to two rocky pinnacles. The S pinnacle forms the summit of the island and is 671m high. The W side of the island is very precipitous.

Link Stack lies close off the N extremity of Chavez Island. The Triad Islands, a group of three, and Verge Rocks lie 2 miles E and 2 miles N, respectively, of this stack. An islet is also reported to lie 0.5 mile NE of the stack. Trickster Rocks, the Sanctuary Islands, and the Riddle Islands lie close off the NW and SW extremities of the island.

Bigo Bay (65˚43'S., 64˚30'W.) is entered between the NW extremity of Chavez Island and Cape Garcia, 7 miles SW. Mount Bigo, 1,981m high, rises at the head of this bay. Lizard Island lies parallel to the N side of the bay and is separated from it by a narrow channel. It is low and covered with ice except at the summit.

From **Cape Garcia** (65˚44'S., 64˚40'W.), the coast extends S for 5 miles and then SSE for 9 miles, where it forms the NE shore of Barilari Bay. This bay is 6 miles wide and its shores are formed by ice cliffs which face the seaward edges of broad, glacial slopes. At the head of the bay, three glaciers descend from the interior between high rocky masses.

3.37 Sphinx Island (65˚54'S., 64˚53'W.), 2 miles long and 0.5 mile wide, lies near the S entrance to Barilari Bay. This island is inaccessible and presents a bare rock summit with vertical ice faces on all its sides. Several islets and rocks lie close off the N and SE extremities of the island. The location of Sphinx Island reduces the width of the entrance to Barilari Bay.

A bay, which is obstructed by an island, lies between Loqui Point and Rossa Point, 6.5 miles WSW. Landing can be effected in the vicinity of the latter point. The Llanquihue Islands, which form the E side of Harrison Passage, extend 7 miles N from this island. Tuorda Peak, 871m high, rises 2 miles SE of Rossa Point, with Hoek Glacier located E of it.

The **Biscoe Islands** (66˚00'S., 66˚30'W.) form a chain which extends parallel to the W coast of the Antarctic Peninsula. This chain lies between 15 and 20 miles from the mainland and is separated from it by Pendleton Strait and a maze of smaller islands and islets. The islands in the chain extend for 85 miles between the Martins Islands and Matha Strait. They are separated into two groups by Pendleton Strait. These islands are entirely covered by glaciers, presenting domes of ice that often are very extended and, in some cases, bare rock is observed only at the base of the ice cliffs near the water's edge.

The Biscoe Islands have not been accurately surveyed and no landing places, shelters, or harbors are known to exist within them.

Rabot Island lies close S of Renaud Island and is separated from the latter by Rodman Passage, about 1.5 miles wide. Extension Reef extends up to 8 miles SW from Rabot Island and many small islands lie on it. Numerous icebergs are also usually reported to be aground on this reef. A beacon is reported to stand on one of the islands lying near the SW end of the reef, 5.5 miles SSW of Monflier Point, the SW extremity of Rabot Island. Another beacon stands near Monflier Point and a hut is reported to be situated close to a small cove, 0.8 mile ENE of it.

Renaud Island is the largest of the Biscoe Islands. The entire W coast of this island is fronted by a foul ground area which extends up to 5 miles offshore. This area is dotted with innumerable islets and rocks, which break, and numerous below-water rocks and reefs. A chain of islets, surrounded by foul ground and about 1 mile long, lies 7.5 miles off the W coast of Renaud Island, abreast the middle of the island. A foul ground area extends 6 miles SSW from the S extremity of Renaud Island. Two islets, surrounded by foul ground, lie 11.5 miles W of the S extremity of the island. A shoal area, the existence of which is probable, is reported to lie about 26 miles W of the S extremity.

3.38 The **Pitt Islands** (65˚26'S., 65˚30'W.), a group of islands, are located near the N end of the Biscoe Islands. Two

Table of Contents

isolated islands lie close N of the main group, about midway between Snodgrass Island and Lumus Rock.

The Pitt Islands include Trundle Island, the NE of the group; Jinks Island; Snubbin Island, the W of the group; Nupkins Island; Sawyer Island; Pickwick Island, the largest of the group; Winkle Island; Tupman Island; Fizkin Island; and Slumkey Island. Johannessen Harbor is bordered by Snodgrass Island, Weller Island, and Jingle Island. It is entered through Wardle Entrance. Buzfuz Rock lies 1 mile W of Snubbin Island.

Smiggers Island, Lacuna Island, and Trivial Island lie at the SE side of the Pitts Islands, with Huddle Rocks, the Symington Islands, Lorn Rocks, Cornet Island, Milnes Island, and Woolpack Island located farther E and SE.

A large number of islands and rocks, which may best be seen on the chart, lie within an unsurveyed area located E of Renaud Island. These include Karelin Island, Martin Island, the Vize Islands, Nusser Island, Wittmann Island, Laktionov Island, Schule Island, Budel Island, Bates Island, Hummock Island, Round Island, Hennessy Island, Zukriegel Island, Curtis Island, Dodman Island, and the Trump Islands. Jagged Island lies close E of Dodman Island, with Beer Island located close S of it.

Duchaylard Island (65˚43'S., 65˚07'W.), 555m high, has a prominent conical peak and lies at the SW end of Grandidier Channel, 5 miles SSW of Woolpack Island. Landing may be made at the SE end of this island.

3.39 Vieugue Island, 305m high, has a conical peak and lies 1 mile NW of Duchaylard Island. Hook Island and Holmes Island lie 1 mile NE and close SSW, respectively, of this island. Guile Island, Cat Island, and Runnelstone Rock lie 1.3, 3.3, and 5.8 miles, respectively, SW of the island.

Larrouy Island is 744 high; its S extremity lies 5 miles NNE of Ferin Head. Landing may be made on Tadpole Island, which lies 2.5 miles SW of Larrouy Island.

From the ice cliff at the SW entrance point of Barilari Bay, the coast extends SW for 6 miles and then W for 6 miles to **Ferin Head** (65˚59'S., 65˚20'W.). This headland is marked on its N face by a horizontal ridge, behind which rises a snowy cone, and forms the NE entrance point of Holtedahl Bay. The Fish Islands, a group of six, lie in the NE part of the entrance to the bay and extend 4 miles SW from Ferin Head. A depth of 36m was reported to lie about 4 miles WSW of Ferin Head.

From Ferin Head, the coast extends S for 3 miles to Sharp Peak. Prospect Point is located 1.3 miles S of Ferin Head and a hut is reported to stand on its NE side. Flounder Island, the largest of the Fish Islands, lies 1.5 miles SSW of Prospect Point.

Black Head (66˚06'S., 65˚37'W.) forms the N extremity of a peninsula which rises to Waldeck-Rousseau Peak, 3 miles S. This peak is conspicuous and bears some resemblance to the monolith at Cape Perez, but is not as sharp. Cape Evensen, located 7 miles SW of Black Head, is a bold headland, with cliffs of ice and rock, which forms the W extremity of the peninsula. A shoal, with a depth of 11m, was reported (1958) to lie about 1 mile NW of Cape Evensen. Marie Island lies close NW of this cape.

3.40 The **Saffery Islands** (66˚04'S., 65˚49'W.), a group with Turnabout Island at its SE end and Turtle Island at its NW end, lie between 2 and 8.5 miles WNW of Black Head. The Trump Islands lie between 4 and 5 miles WNW of Turtle Island, 5 miles WSW of Dodman Island. Breakers have been observed to front the W side of the Trump Islands and a below-water rock has been reported, from the air, to lie about 2.8 miles NNE of them. Another below-water rock is reported to lie about 0.8 mile W of these islands.

Auvert Bay (66˚14'S., 65˚45'W.), of undetermined extent, lies between Cape Evensen and Cape Bellue. A group of islands and rocks lies within 1 mile SSE of Cape Evensen. Risk Rock, above-water, and Pesky Rocks, also above-water, lie 1.8 miles WSW and 4.5 miles W, respectively, of this cape.

Malus Island, 30m high, lies 4 miles S of Cape Evensen and two low rocks lie 1 mile NE of it. A rocky islet lies 1 mile WSW of Cape Bellue and several rocks front the rocky cliffs on the NE side of this cape.

Crystal Sound separates the Biscoe Islands from the mainland. It is about 55 miles long, 20 miles wide, and contains numerous islands which are not easily distinguished from the drift ice. This sound has numerous shoals, which rise from very deep water, and navigation within it is exceedingly hazardous.

Lavoisier Island (66˚12'S., 66˚44'W.) is the northernmost of the S group of the Biscoe Islands. Foul ground extends up to 2.5 miles seaward from Cape Leblond, its N extremity. The W shore of the island, which has not been fully examined, is fronted by foul ground extending up to about 2.5 miles seaward. The E shore of the island has not been examined at all.

Dubois Island and Krogh Island lie close SW of the SW extremity of Lavoisier Island. Molnar Rocks lie about 4.5 miles off the W coast, abreast the middle of the island; a dangerous rock lies 1.3 miles NNW of them.

Watkins Island lies 3 miles S of Lavoisier Island. A group of islands extends S from this island, the southernmost being Decazes Island. Foul ground extends up to 3 miles W from this group.

Belding Island lies close W of the S extremity of Watkins Island. The NW shore of this island is fringed by foul ground. Several islets and areas of foul ground extend up to about 3.5 miles SW of the SW extremity of this island. An isolated and dangerous rock lies about 5.8 miles SW of the SW extremity of the island.

The NW shore of Watkins Island is fronted by numerous islets and rocks which extend up to 1.3 miles seaward. A rock, awash, and a below-water rock lie about 2 miles NW and 2.5 miles W, respectively, of the NW end of Watkins Island. An isolated, small island, existence doubtful, is reported to lie about 7 miles WSW of the NW extremity of Watkins Island.

Numerous small islands and rocks lie E of the Biscoe Islands.

Matha Strait (66˚34'S., 67˚30'W.), a channel, leads between the rocks, which lie SW of Belding Island and the Barcroft Islands, and the Sillard Islands, which lie off Cape Muscart, the NE extremity of Adelaide Island.

Darbel Bay to Horseshoe Island

3.41 **Darbel Bay** (66˚37'S., 66˚32'W.) is entered between Cape Bellue and Cape Rey, 25 miles SW.

Rambler Harbor (66˚28'S., 66˚27'W.), a sheltered anchorage area, lies on the N side of Rambler Island. Reefs extend NE from this island to the first group of islands, the outermost of which is known as Atom Rock. Rambler Island is mostly surrounded by ice cliffs.

Vessels approaching this harbor from the S should keep outside the off-lying islands and enter from the N. A rock, awash, lies close off an isolated outcrop which projects midway along the W side of Sunday Island. This rock outcrop is only noticeable from the E and, being only 6m high, is difficult to identify when there is drift ice.

Two small, snow-covered rocks lie close off the ice cliffs of Rambler Island and opposite the SE extremity of Sunday Island. A low rock and an island lie 2.5 miles NNW of the Bragg Islands.

The **Loubet Coast** (67˚00'S., 66˚00'W.) forms the continuation of the W coast of the Antarctic Peninsula and extends from Cape Bellue to the head of **Bourgeois Fjord** (67˚40'S., 67˚05'W.), in Marquenite Bay.

Cape Rey (66˚36'S., 66˚27'W.), faced by dark and perpendicular cliffs, forms the seaward promontory of a rocky mass which extends S. This cape is bordered at its base by a dome-shaped ice sheet. The cape also forms the NE entrance point of Lallemand Fjord.

A small group of islands and rocks lies 2 miles NNE of the cape. A below-water rock is reported to lie, position approximate, about 0.5 mile W of the cape.

Caution.—Navigation within Darbel Bay is dangerous. When entering the bay between the Ouston Islands and the Darbel Islands, the largest of which lies 6 miles SSW of Cape Bellue, care should be taken to avoid the off-lying rocks which extend up to 0.5 mile N of the N end of the latter group. The entire area surrounding these groups of islands is foul.

3.42 The **Pauling Islands** (66˚32'S., 66˚58'W.), forming an isolated group, lie 12.6 miles NNW of Cape Rey. This group consists of a snow-domed island and several smaller ice-capped islands. Numerous rocks front the W and S sides of these islands. The main island is 100m high and surrounded by ice cliffs except at its NE extremity, where a rock outcrop projects to form a landing place. An island, existence doubtful, was reported to lie about 5 miles SW of this group.

Matsuyama Rocks, a group of islets and rocks, lie 4 miles SW of Cape Rey and front the shore where a rocky promontory protrudes from the ice cliffs. Holdfast Point and a small bay lie 8 miles S of this rocky promontory. Mist Rocks and an isolated rock lie about 1 mile W and 2 miles NW, respectively, of this promontory. A below-water rock is reported to lie, existence doubtful, about 4 miles NNW of this promontory.

Lallemand Fjord extends 40 miles S from Cape Rey and is entered between Holdfast Point and Roux Island, 11 miles SW. A small group of rocks lies close off **Orford Cliff** (66˚55'S., 66˚30'W.) which is located 7 miles S of Holdfast Point.

The E shore of the fjord is formed by a rocky mass, of which Cape Rey is the N extremity. Near the head of the fjord, this rocky mass is broken by a glacier which flows W from the high interior.

The S shore of the fjord is formed by two wide glaciers which flow down from a height of 1,220m. These glaciers are separated by a snow-covered, rocky plateau mass which is about 1,500m high. The W entrance point of the fjord is formed by a rocky peninsula which is surmounted by two prominent peaks.

Roux Island (66˚54'S., 66˚57'W.), 293m high, lies NE of the W entrance point from which it is separated by a channel, 0.3 mile wide. This island has vertical slopes on its N side.

3.43 Andresen Island lies on the E side of the entrance to Lallemand Fjord, 4 miles from the ice cliffs which form the E shore. Landing can be made on the NW extremity of this island where a rocky ridge extends to the coast.

Detaille Island, 36m high, lies 2 miles WNW of Andresen Island. Numerous above and below-water rocks and foul ground extend up to 0.8 mile from all sides of this island. A hut is reported to stand on the N side and a beacon surmounts the summit of the island.

Shmidt Point (66˚55'S., 67˚02'W.) is the N extremity of Arrowsmith Peninsula, which extends 41 miles SSW to Cape Saenz. Hanusse Bay is entered between this point and Cape Mascart, the NE extremity of Adelaide Island, 20 miles NW. At the S end of this bay, Hansen Island lies close to The Gullet, a narrow passage which separates Adelaide Island from the mainland.

The Gullet lies between the Arrowsmith Peninsula and Adelaide Island and connects Hanusse Bay to Laubeuf Fjord. This passage is 0.2 mile wide and strong currents have been observed within it. On the N side, the passage opens into channels which lead on either side of Hansen Island. On the S side, the passage opens into channels which lead on either side of Day Island. Due to this topography, strong local winds may be encountered.

Day Island lies 2 miles N of Wyatt Island; two small islands lie 3 miles W of its SW extremity. Other small islands lie close off Adelaide Island and 1 mile NW of the N extremity of Day Island.

Wyatt Island lies 2.5 miles offshore, 6 miles NE of Webb Island. A razorback ridge of exposed rock projects through the blanket of snow and ice covering this island.

Pinero Island, prominent when viewed from the SW, lies 4 miles W of **Cape Saenz** (67˚33'S., 67˚39'W.); another small island lies 0.4 mile NE of it. Several jagged peaks, up to 380m high, rise at the S end of this island. The N end of the island is comparatively flat, 224m high, and is marked by a cairn with a flagstaff. A dangerous rock is reported to lie about 1 mile NNW of the N extremity of Pinero Island.

Covey Rocks lie about midway between Cape Saenz and Pinero Island.

3.44 **Pourquoi Pas Island** (67˚41'S., 67˚28'W.) lies 3 miles S of Cape Saenz. Lainez Point, a steep and rocky promontory, is 914m high and forms the W extremity of the island. The S slopes of this point form the N shore of Dalgliesh Bay. The S shore of the bay consists of steep cliffs. These cliffs front a rugged massif, 1,644m high, which forms the S part of the island. At the head of the bay, the slopes of a glacier

Table of Contents

descend from the high interior of the island. The E coast of the island is inundated by ice, with only a few bare rocks showing. The S part of this coast is faced by steep slopes, up to 1,128m high.

Nemo Cove, 1 mile wide and 1 mile long, indents the E coast of the island and Mount Arronax, 1,585m high, rises close N of it. The N coast of the island is indented by a large bay, 4 miles wide. This bay recedes for 3 miles and its shores consist of low, glacial slopes with occasional rocky hills and shingle beaches.

Quilp Rock, consisting of two above-water rocks, lies about 3.5 miles NNE of Lainez Point. A small island is reported to lie about 7.5 miles W of Lainez Point.

Bigourdan Fjord, about 10 miles long and 3 miles wide, lies N of Pourquoi Pas Island. The W entrance of this fjord is formed by Cape Saenz. A reef obstructs the S half of this entrance and extends 1 mile N from Pourquoi Pas Island. The N shore of the fjord consists of a glacier-filled valley, which extends N to Lallemand Fjord, and several high, rocky massifs. Blaiklock Island, 1,341m high, lies at the E end of the fjord and is separated from Pourquoi Pas Island by a channel about 1 mile wide.

The Narrows lies between Pourquoi Pas Island and Blaiklock Island. This channel is about 0.5 mile wide and connects Bigourdan Fjord to Bourgeois Fjord. Strong currents usually set in this channel. A small island, fringed by rocks, lies in the NE entrance to this narrow channel.

It was reported (1979) that Jones Channel N of Blaiklock Island was blocked by an ice shelf and was not navigable.

Bourgeois Fjord is entered between the S extremity of Pourquois Pas Island and the S extremity of Lagotellerie Island. It extends 30 miles in a NNE direction to Blind Bay. Blind Bay forms the SW limit of the Loubet Coast and the NE limit of the Fallieres Coast. Barnes Glacier and Perutz Glacier lie at the head of this bay.

Ridge Island lies in the center of Bourgeois Fjord. This island is about 7 miles long and is marked by a razorback ridge of dark rocks, 668m high, which forms the long axis of the island. This ridge descends to a col in the N part of the island and, farther N, rises to a rounded hill, 305m high, which is very steep on its N side. A bay, with a broad and gently-sloping beach, lies S of this rounded hill and below the col. The S end of the island is 1 mile wide and is fronted by an ice cliff. A raised shingle beach fringes the SW end of the island and is covered with debris which has fallen from the steep slopes above it.

The entrance to Dogs Leg Fjord lies on the E side of Bourgeois Fjord, E of Ridge Island. This fjord extends for 7 miles in an E direction. Two islands lie in the entrance of the fjord, which is about 2 miles wide. A small rock was reported (1971) to lie about 2.5 miles WSW of these two islands.

3.45 Adelaide Island (67˚15'S., 68˚30'W.) is 73 miles long and extends in a NE/SW direction. This island has an average width of over 18 miles and lies seaward of the Loubet Coast. It is separated from the mainland by Hanusse Bay, in the S part of Matha Strait; by Loubet Strait; and by Laubeuf Fjord, in the N part of Marguerite Bay.

A range of mountains extends the entire length of the island and presents a number of steep slopes on its E side. On the W side of this range, a long terrace of snow and ice spreads from the base of the mountains to the sea. This terrace terminates in perpendicular cliffs, 30 to 45m high.

Jenny Island, 1.8 miles long and 0.9 mile wide, lies 4 miles ENE of Cape Alexandra. From some directions, this island has been reported to be difficult to distinguish. The S side of the island consists of cliffs, up to 244m high, with a small glacier at their base. The E side of the island is perpendicular and fringed by shingle beaches. These beaches are covered with debris that falls from the heights above. The N side of the island has gentle slopes. A conspicuous horizontal, stone terrace is located at the SW end of the island, at the foot of the highest peak. This terrace is 400 to 480m long, 50 to 100m wide, and rises to a height of 8m above the sea.

Temporary anchorage has been taken off the NE extremity of Adelaide Island. Anchorage, sheltered from strong NE winds, has also been taken, in a depth of 42m, about 1 mile S of the rocks fronting the SW side of Jenny Island.

3.46 Ryder Bay (67˚34'S., 68˚20'W.) is entered between an unnamed point on the SE coast of Adelaide Island, located 4 miles N of Jenny Island, and Rothera Point, 9 miles NE. Four glaciers flow into this bay.

Killingbeck Island, 28m high, lies 0.9 mile E of Rothera Point. This island consists mainly of snow-free, rocky outcrops and can be easily distinguished by its rounded hump from the S. However, this hump is sometimes hidden by icebergs which may be grounded on a reef extending up to about 0.8 mile S of the island.

Rothera Point, a rocky headland, is 38m high and usually free of snow during the summer. North Cove lies on the NE side and South Cove lies on the SW side of this headland. These two coves, which have gently sloping shingle beaches, may be used for boat landings, depending on the prevailing weather and ice conditions. The windward cove tends to fill with icebergs and brash ice; however, most icebergs are able to float freely in and out of these coves due to their great depths. A jetty, suitable for small boats, is reported to be situated within South Cove and has a depth of 0.8m alongside. A rocky ledge, with a least depth of 1.2m, fronts the E side of this cove.

A gray shingle beach, 300m wide, extends W between the headland and an ice field. Adelaide Island (Rothera), a British base station, is situated in the vicinity of this beach. An airstrip is situated 2.5 miles NW of Rothera Point. It stands on the NE side of Reptile Ridge which backs the NE shore of Ryder Bay.

An extensive shoal, with a least depth of 2.3m, lies centered 0.8 mile NW of Killingbeck Island. Several drying and below-water rocks also extend up to 0.4 mile N of this island. A rock, which dries 4.3m, lies close off the S extremity of Rothera Point and a number of other dangers are located between it and the island.

An area extending S and W of the island is encumbered with numerous dangers and is hazardous for boats. However, a clear channel, with a depth of 42m, leads between the island and this area. Local knowledge is advised. The approach to Ryder Bay is obstructed by the Leonie Islands.

3.47 Leonie Island (67˚36'S., 68˚21'W.), the largest and westernmost of a group of islands, is 1.5 miles long, conical, and 494m high. This island is reported to be often difficult to distinguish against the background of Adelaide Island. A

below-water rock lies about 0.5 mile N of this island and several rocks, awash, lie 0.3 mile E and 0.5 mile S of the E extremity of the island. The area surrounding this island is otherwise unsurveyed.

Lagoon Island lies 2 miles E of Leonie Island. A shallow boat harbor, which is entered from the S, indents the shore of this island. Foul ground is reported to extend from the entrance points of this harbor.

Limpet Island lies 1.5 miles SE of Leonie Island and is 25m high. Several small islands and below-water rocks lie within 0.3 mile N and W of this island. A rock, existence doubtful, was reported (1980) to lie about 0.8 mile SE of this island. Additional dangers were also reported to lie close SW of this rock.

Anchorage Island, the E of the group, lies 0.8 mile SE of Lagoon Island. This island is 1.5 miles long and 57m high in its N part; a small island lies close SE of it. Two small boat harbors indent the E side of Anchorage Island. The S harbor has depths of 3 to 7m, but was reported (1976) to be heavily blocked with ice. The approach to the N harbor was reported (1977) to be blocked by several grounded bergs. A number of below-water rocks front the S side and extend up to 0.4 mile S of the island. A channel, with a least depth of 7.7m, leads between Lagoon Island and Anchorage Island.

The Mikkelsen Islands, consisting of a group of nine islands, lie 2 miles SE of Anchorage Island. The southernmost island of this group is 17m high.

Anchorage Island and the Mikkelsen Islands consist mainly of snow-free rock and can be quite easily identified against the snow-covered background by vessels approaching from the S. Occasionally, the islands are obscured by large icebergs that drift in the deep water in this vicinity. From the SE, the two groups of islands merge together and identification is difficult.

The passage leading between Anchorage Island and the Mikkelsen Islands is deep, but a small islet, 2m high, lies 0.5 mile N of the N island in the Mikkelsen Islands. This islet is often obscured by bergs. Ives Bank, with a least depth of 11m, lies about 1 mile S of the W island of the Mikkelsen Islands. The passage should be navigated with great care.

An area, 18 miles long and 3 miles wide, lying in the approach to Rothera Point was examined in 1976. This area extends for 1.5 miles on each side of a line, 18 miles long, drawn on a bearing of 030˚ from a position located 3.5 miles E of the Guebrant Islands. A least depth of 95m within this area was reported to lie about 3 miles E of Killingbeck Island.

Deep-water routes lead between Jenny Island and Adelaide Island and then to the E of the Mikkelsen Islands or between Anchorage Island and the Mikkelsen Islands. However, the use of these routes may depend on the ice conditions.

Anchorage.—No safe anchorage exists in the vicinity of Rothera Point, Anchorage Island, or the Mikkelsen Islands. Temporary anchorage may be taken, by small vessels with local knowledge, in a depth of 35m, within the bay close N of Rothera Point and about 350m NW of the N extremity of the headland. However, this anchorage is very dangerous with the prevailing NE winds, especially at night, due to the risk of large icebergs drifting close inshore.

3.48 Weertman Island (66˚58'S., 67˚45'W.), the largest of the Bennett Islands, has a prominent pyramidal-shaped peak, 596m high. This island is the southernmost of a group of five which lies SW of Laird Island. A landing place is located at the NE extremity of Weertman Island, below a prominent cliff. A shoal patch, with a depth of 12.8m, lies about 2 miles NNE of the E end of this island.

Laird Island, 11 miles long, lies in the middle of Hanusse Bay. This island has a central range of mountains which rises to Mount Bridgman, 879m high. The coast of the island consists of an unbroken line of ice cliffs except at Tutton Point, its SW extremity. Several extensive rock exposures are located close N of this latter point. Numerous reefs and shoals lie up to 4.5 miles seaward of the N extremity of the island.

Buchanan Passage leads between Adelaide Island and Laird Island. Isacke Passage leads between Laird Island and Arrowsmith Peninsula.

The **Sillard Islands** (66˚37'S., 67˚34'W.), a group of two, are ice-covered and lie 2.5 miles NE of Cape Masca, the NE extremity of Adelaide Island. These islands are surrounded by foul ground. A small reef and two rocks, awash, lie close off the N side of these islands, on S side of Matha Strait.

From the NW extremity of Adelaide Island, the W coast extends in an unbroken line of ice cliffs to Cenobite Rocks. The shore is steep-to and mostly clear of dangers.

At the beginning of January, a tongue of drift ice forms on the S side of the entrance to Matha Strait and usually extends from a position located 5 miles N of Cape Masca up to about 16 miles W of the cape. To the W of this ice tongue, a passage leads nearly 10 miles NNW. Later on, this passage forms a coastal channel, 5 to 10 miles wide, but gradually decreases in width until it closes entirely in the vicinity of Cape Adriasola. The ice tongue is formed mainly by wind action.

A number of large icebergs often lie grounded about 2 miles N of Cenobite Rocks and indicate the N limit of the shallow water.

The Amoit Islands, consisting of two groups, lie between 10 and 12 miles W of Cape Adriasola and are fronted by several reefs and rocks. The Ward Islands, two in number, are located in the S group and rise to heights of 6.7 and 7.6m. Cumbers Reef and a small island, 5.2m high, are located in the N group. These dangers may best be seen on the chart.

A shoal patch, with a depth of 33m and which breaks in a heavy swell, lies 2 miles N of Cumbers Reef. Grounded icebergs are reported to often indicate the shoal areas lying in the vicinity of the Amoit Islands, the Ward Islands, and Cumbers Reef.

3.49 Cenobite Rocks (67˚35'S., 69˚18'W.), a group of three, lie about 2.5 miles W of Adelaide Island. The largest of these rocks is 5.2m high. To the S of these rocks, the coast of Adelaide Island extends 4.5 miles SSE to Cape Adriasola and is fringed by numerous small islands and below-water rocks.

Cape Adriasola consists of a promontory fronted by an ice cliff. At many points on this ice cliff, rocky outcrops can be seen protruding a few meters above sea level. A small group of rocks, up to 2.4m high and usually obscured by ice, lies 0.8 mile W of this cape.

The Chatos Islands, a group of three, lie about 1 mile SSW of the cape. The group is fronted by numerous rocks and its largest island is 12m high. Cono Island, conspicuous and conical, is 58m high and lies 1 mile S of this group.

Table of Contents

Johnston Passage separates the Amoit Islands from Cenobite Rocks. Grounded icebergs are reported to often indicate the shoal areas lying in the vicinity of the Amoit Islands, the Ward Islands, and Cumbers Reef.

Fullastern Rock, with a least depth of 1.8m, lies 6.5 miles WNW of Cape Adriasola, in the middle of Johnston Passage. It is steep-to and has been reported not to break. This rock is not always marked by grounded icebergs and should be given a wide berth.

3.50 From Cape Adriasola, the ice cliff trends 8.5 miles SE to Adelaide, a disused British base. The remains of the base, consisting of several boarded-up huts and three metal masts, stand on an ice-free rocky point, 24m high.

Numerous low islets, rocks, and reefs fringe this stretch of coast. The islets are sometimes ice-capped and frequently difficult to distinguish.

The coast extending for 3 miles SE of Cape Adriasola is fronted by foul ground lying up to 1 mile offshore.

Nueva Rock, which is steep-to and frequently breaks, lies 3.5 miles S of **Cono Island** (67˚41'S., 69˚10'W.). League Rock, 6m high, and the Esplin Islands, up to 6m high, lie 3 miles SE and 4 miles E, respectively, of Nueva Rock. Cox Reef, which dries, lies 2 miles ESE of Nueva Rock. A shoal patch, with a depth of 6.4m, lies 0.9 mile N of this reef. This shoal lies near the N end of a bank, with depths of 13 to 37m, which extends N from the reef.

Box Reef, a chain of drying rocks, lies between League Rock and the Esplin Islands and may best be seen on the chart. Hibbert Rock, awash, lies 0.9 mile SE of League Rock and foul ground extends up to 2 miles E of it.

Patience Rocks, up to 1.2m high, lie 0.7 mile NNW of the former base. From these rocks, foul ground extends 1 mile SW to within 0.2 mile of the foul ground extending E from League Rocks. Glover Rocks lie close SE of the former base and extend up to 0.4 mile from the shore. Launch Rock, with a depth of 1.5m, lies 0.5 mile SSW of the former base.

Avian Island (67˚46'S., 68˚54'W.) lies close off the coast, 0.2 mile SSE of the SW end of Adelaide Island. This island is rocky, ice-free, and 48m high at its S end. A lattice tower, 12m high, is reported to stand on the S end of this island. Several reefs fringe the W side of the island and extend up to about 0.5 mile S. Two huts are reported to stand on this island. A beacon with racon stands on the S coast of the island.

The Henkes Islands, separated by Crosse Passage from Skeen Rocks, lie centered 2.5 miles SSW of the former base. Crouch Island, the southernmost and largest of the group, lies 3 miles SSW of Adelaide Island. Its summit, which is 11m high, is surmounted by a tripod beacon. Preston Island lies close to Crouch Island. These islands are steep-to on their S sides and numerous shoals and areas of foul ground lie in their vicinity. Worth Reef and Dean Rocks extend up to 1 mile N and 1.5 miles E, respectively, from Preston Island. Biggs Island, 3.7m high, lies 1.3 miles S of Avian Island.

Anchorage can be obtained, in a depth of 27m, about 0.7 mile SSW of the former base. The shoal patches in the vicinity provide some protection from large icebergs which continually drift into this anchorage from the W. The anchorage may be approached from the E by passing through Crosse Passage, close N of Biggs Island, and then altering course to 320˚. By keeping the latter island astern, bearing 140˚, this course leads midway between Skeen Rocks and Worth Reef. The anchorage should be used only in case of necessity and is not recommended due to the frequency of icebergs drifting in the area.

From the SW end of Adelaide Island, the coast extends 7 miles E to Cape Alexandra which is faced by steep, rocky cliffs. It consists mostly of ice cliffs, up to 30m high, with occasional rock outcrops at their base. A short patch of rocky cliffs, 482m high, is located 1.5 miles W of Cape Alexandra.

3.51 Jennings Reef extends 3 miles E from Avian Island and up to 1.5 miles from the coast to the Rocca Islands. This reef consists of an extensive chain of low islands, shoals, and rocks. The Rocca Islands rise to a height of 6m.

The Ginger Islands, up to 13m high, lie 0.3 mile offshore, 4.5 miles ENE of Avian Island. A shoal patch, with a least depth of 3.4m, and a detached shoal, with a depth of 20m, lie 0.8 mile ESE and 2.5 miles S, respectively, of the Ginger Islands.

Fitton Rock, 7m high, lies 0.4 mile SSE of Cape Alexandra; a below-water rock lies 0.5 mile W of it. Another below-water rock is reported to lie about 0.7 mile NE of Fitton Rock.

Vessels have obtained anchorage, in a depth of 35m, about 0.8 mile NE of the Rocca Islands. This roadstead was reported to be almost completely free of any dangers from drifting ice bergs or bergy bits.

Square Bay to Alexander Island including Marguerite Bay

3.52 **Square Bay** (67˚51'S., 67˚00'W.) is 9 miles long and 9 miles wide. Broken Island and Center Island lie within this bay. Lagotellerie Island and Horseshoe Island front the bay and separate it from Bourgeois Fjord.

The E shore of the bay is mostly formed by almost vertical, rocky walls which, in places, are faced by ice falls or hanging glaciers. The S part of the E shore is filled by a large glacier which extends into an interior valley. Many raised beaches and glacial moraines front the steep and rocky cliffs within this bay. The S shore of the bay consists of precipitous, bare rock walls which rise to Mount Wilcox, 1,402m high. These walls are broken up by two small glaciers, each about 1 mile wide.

Camp Point (67˚58'S., 67˚19'W.), a prominent pyramid-shaped promontory, has steep sides and is 1,010m high.

Broken Island lies in the N part of the bay, about 2 miles from the N and E shores. Two small islets, fringed by foul ground, lie close off the SW side of this island. Centre Island lies in the S part of the bay, about 3 miles N of the S shore. The Line Islands extend 1 mile in an E/W direction and lie in the S entrance to the bay, midway between Horseshoe Island and Camp Point.

3.53 **Horseshoe Island** (67˚52'S., 67˚16'W.) lies with its SW extremity located 1.8 miles E of Lagotellerie Island. Mount Breaker, 879m high, is the southernmost and tallest of several peaks standing in the SE part of this island. Penitent Peak, 823m high; Ryan Peak, 809m high; Trifid Peak, 646m high; Spincloud Heights, with two peaks 646 and 626m high; and Russet Pikes, 538m high, rise in the NE part of the island. The slopes of the peaks are covered by loose boulders, with the

steepest being devoid of snow. Several conspicuous glaciers lie between the peaks.

Several small islets and rocks fringe the S side of Horseshoe Island; Reluctant Island lies close off the E extremity. A number of small islands front the SW shore of Horseshoe Island and foul ground fringes the W extremity. A shoal, with a depth of 3.7m, is reported to lie about 4 miles W of the NW extremity of this island. Another shoal, with a depth of 12.8m, lies about 2 miles WSW of the NW extremity.

Lystad Bay indents the W side of the island and is flanked, on its N side, by Mount Searle, 536m high. The S side of this bay consists of steep, bare cliffs. Several fresh water lakes lie beyond the glacier which fronts the N shore of the bay. A large glacier terminates at the water's edge in an ice cliff, 9m high, at the head of the bay. Two small islets lie in the N part of the bay, close S of the N entrance point. At the head, several islets and shoals extend up to 1.5 miles seaward from the face of the ice cliff. Sally Cove lies 2 miles NE of Beacon Head and Homing Head is located 2.5 miles NE of it. A hut is reported to stand near the head of the cove.

A conspicuous gravel spit fronts the S shore of the bay, close inside the S entrance point. Shoals, with depths of 6.4 and 4.1m, lie 0.5 mile W and 0.5 mile WNW, respectively, of this spit.

Anchorage can be obtained, in depths of 38 to 55m, within Lystad Bay. However, the depths may be less than those charted and the bottom consists of sand, gravel, and rock.

Caution.—Depths of only about 19m have been reported (1991) to lie up to 4.5 miles SW of Camp Point.

3.54 Calmette Bay (68˚03'S., 67˚10'W.) is entered between Camp Point and Cape Calmette, 6 miles SSE. Bare slopes, up to 780m high, front the NE side of this bay. McMorrin Glacier descends into the bay from Mount Wilcox and Mount Metcalfe. Todd Glacier descends toward the bay from Boulding Ridge.

Cape Calmette is formed by the NW extremity of a narrow and rocky peninsula which is 460m high and rises from the sea in precipitous cliffs. A group of below-water rocks lies 2 miles WSW of this cape. A rock, awash, was reported (1975) to lie about 3.5 miles WSW of the cape; another rock was reported (1981) to lie, position approximate, about 2 miles farther W.

Millerand Island lies 4 miles S of Cape Calmette and about 1 mile W of the mainland ice cliffs. The E and S shores of this island consist of a large glacier which slopes from the steep, rocky masses to the water's edge. A cove lies at the NE end of the island and is bounded by low, rocky spurs. These spurs extend from the base of a promontory which is 579m high. This cove has not been surveyed, but it may provide an anchorage. The island is reported to be radar conspicuous and has been sighted at a distance of 40 miles in good weather.

A chain of small islands and rocks lies close off the SW extremity of Millerand Island and extends up to 2 miles SE. Several reefs and numerous small islands also extend up to 3 miles NW and 6 miles W of the island. Pod Rocks lie 5 miles W of the island and a reef, with a least depth of 12.5m, is reported to lie about 5 miles SW of them. A fairway, with a least depth of 13m, leads through Powell Channel between Millerand Island and the Debenham Islands.

Caution.—Vessels are advised to use great care when navigating in the vicinity of Millerand Island and Calmette Bay as numerous dangers lie in this area and strong currents have been observed. In addition, violent winds often blow off the high interior in this vicinity.

3.55 The Debenham Islands, a chain of islands and rocks, extend between Cape Calmette and Millerand Island. This chain also extends NE in an arc from a point, located 4 miles W of the highest peak of Millerand Island, and then SE to the narrow strait which separates the latter island from the ice cliffs of the mainland. The principal islands of the chain are Barbara Island, Barry Island, Brian Island, Audrey Island, Ann Island, and June Island. The narrow passages which lead between the N islands of the group are foul and navigable only by small craft and boats. The passage leading between Brian Island and Audrey Island is about 0.2 mile wide, but is encumbered with numerous shoals and other dangers. A shoal, with a depth of 4.6m, lies midway between these two islands. A navigable channel leads between this shoal and the foul ground extending N from Audrey Island. It is about 90m wide and has a least depth of 14.6m.

Three shoals, with depths of 10 to 15m, lie between about 0.6 and 0.9 mile SW of the summit of Barbara Island. Numerous other shoals and dangers front this chain and strong currents have been observed in its vicinity.

Anchorage may be taken, in a depth of 38m midway between Audrey Island and the mainland. Due to the violent winds, which sweep off the interior, vessels are advised not to anchor in the narrow passages or in the vicinity of any below-water dangers.

General San Martin, an Argentinean base, is situated on Barry Island. Beacons are reported to stand on Brian Island and Audrey Island, the two westernmost islets of the chain. The beacon on the former island is reported to be 30m high and situated at the W side.

Neny Island lies in the entrance to Neny Bay, 3 miles SE of Millerand Island. Its summit, formed by a sharp peak, rises in the center of the island and is 675m high. Store Point, a small projection, forms the N extremity of this island. The shores of the island are steep and partly free of ice in the summer. A rock, with a depth of 2m, lies about 0.4 mile ENE of Store Point. Two shallow shoals lie about 0.6 mile E of Store Point.

Trepassey Island lies 1.2 miles E of Store Point and is fronted on its E side by numerous small islands and above-water rocks. Several islets and rocks, which may best be seen on the chart, lie S and E of this island.

Beaumont Island lies 0.6 mile ESE of Trepassey Island. Burton Rocks, which cover and uncover, lie 2.5 miles SW of Beaumont Island, 0.8 mile S of the middle of the S side of Neny Island.

Tides—Currents.—At Barry Island, in the Debenham Islands chain, the MHHWS near the solstices is reported to be 1.8m above chart datum; the MLLW is reported to be 0.8m The tides in this vicinity are usually diurnal.

3.56 Stonington Island (68˚11'S., 67˚01'W.) lies 0.6 mile NE of Neny Island. This island is 0.3 mile long and extends in a NW/SE direction. Landing may be made on a few small stony beaches fringing the E and SW shores of the island.

Table of Contents

The huts of a disused British base stand close E of Flagpole Point, the W extremity of the island. A flagstaff, with several radio masts standing close SE of it, is situated near this point.

Structures of the U.S. Antarctic Service Expedition (1940) and the Ronne Antarctic Research Expedition (1948) stand close E of the disused British base and are designated as a Historic Site under the Antarctic Treaty. Visitors may enter the buildings and inspect artifacts, but should avoid disturbing the site and secure all doors upon departure.

Neny Bay (68˚12'S., 66˚58'W.) is entered between the NW extremity of the Roman Four Promontory, on which stands a beacon, and Boulder Point, 1.9 miles NNW. Anchorage can be taken, in a depth of 49m, rock with patches of sand and mud, about 0.3 mile WSW of a framework tower situated near Boulder Point. The tidal current at this anchorage usually sets in a SE direction at a rate of 0.5 knot. This current has never been observed to set in a NW direction.

Neny Fjord, which extends 9 miles E, is entered between the Roman Four Promontory and the NW extremity of Red Rock Ridge, 5.5 miles WSW. Postillion Rock fronts the S side of the Roman Four Promontory. Red Rock Ridge, a conspicuous and reddish-colored peninsula, forms the S side of the fjord. This peninsula is 690m high and has vertical cliffs, up to 250m high, facing its N side. A glacier fringes its S side. A number of islands, of which Gremlin Island is the northernmost, lie close off the NW extremity of the peninsula. Numerous rocks lie up to 1 mile seaward of the W side of the peninsula and an isolated rock, awash, lies 7 miles SW of Gremlin Island. Two shoal patches, with depths of 14 and 10.7m, lie 11.5 miles W and 10.5 miles WNW, respectively, of Gremlin Island.

The Refuge Islands, about five in number, lie about 0.3 mile SW of the ice cliffs fringing Red Rock Ridge. A hut is reported to stand on one of these islands. A rock, awash, lies about 5.5 miles W of these islands. A shoal, with a depth of 8.9m, and a very shallow rock are reported to lie about 9 miles WNW and 8 miles N, respectively, of the islands.

A shoal, with a depth of 20.1m, lies about 11.5 miles W of the W extremity of Red Rock Ridge and another shoal, with a depth of 14m, lies about 1 mile SE of it. A shoal, with a depth of 3.1m, is reported to lie about 1 mile SSE of the latter shoal.

Rocky cliffs extend continuously S for about 4 miles from close E of Red Rock Ridge to where a glacier, about 1 mile wide, slopes steeply to the sea. This glacier lies on the Bertrand Ice Piedmont and is bordered on its S side by the notched and almost vertical walls of Black Thumb, a rocky column, which is 1,190m high. Mikkelsen Bay lies between the Bertrand Ice Piedmont and Cape Berteaux, 20 miles SSW.

3.57 Cape Berteaux (68˚50'S., 67˚30'W.) is formed by the W part of a conspicuous promontory, 1,210m high. Several peaks rise on the E part of this promontory.

The **Terra Firma Islands** (68˚42'S., 67˚32'W.) lie 7 miles NW of this cape and comprise a group of several islands and skerries. The islands are very steep and rocky. The S island of the group is the largest and is 320m high. A hut is reported to stand on a small island lying close N of the largest island.

Flyspot Rocks, a group of 13 islets and rocks, lie 18 miles NW of the largest of the Terra Firma Islands. The islets are snow-capped, the tallest being 37m high. Compass Island, rocky and ice-capped, is 30m high and lies 11 miles ESE of Flyspot Rocks.

A rock, awash, is reported to lie, position approximate, about 10 miles WNW of Cape Berteaux. Several unnamed islets, the positions of which are doubtful, are reported to lie between 22 miles W and 23 miles WNW of Cape Berteaux.

Mushroom Island, 152m high, lies 10 miles WSW of Cape Berteaux and rock exposures mark its NE side. A small island and a shoal, with a depth of 29m, lie 13.5 miles WNW and 2 miles N, respectively, of Mushroom Island.

Keyhole Island and another small island lie close N of Cape Berteaux, on the S side of Mikkelsen Bay. A rock, awash, is reported to lie about 14 miles W of Keyhole Island.

A bight lies between Cape Berteaux and an unnamed point, 30 miles SW, and is filled by an extensive mass of ice which is known as the Wordie Ice Shelf. This mass of ice is fed by numerous glaciers which descend from the inland mountains. Its front is 6 to 18m high, except close SE of Cape Berteaux where it descends almost to sea level.

The promontory forming the SW side of this bight, close SW of Cape Berteaux, is fringed by a glacier. Mount Guernsey, a rocky and flat-topped mountain, is 1,230m high and rises 32 miles SW of Cape Berteaux. Three islands lie near the edge of the Wordie Ice Shelf, between 8 and 12 miles SSE of Mushroom Island.

The Puffball Islands, a group of eight, extend 10 miles in a SW direction from a position located 13 miles WSW of Mushroom Island. Seven of these islands form a chain. The additional island of the group lies E of this chain and about halfway between it and the Wordie Ice Shelf. These islands are reported to be often hidden among the tabular icebergs in this area. However, they can sometimes be identified by their convex and ice-capped tops beneath which, nearly always on their N sides, small rock exposures protrude.

The Bugge Islands, a group of three, lie close together close off the SW end of the Wordie Ice Shelf. The largest island of this group is 366m high. Several islets and rocks front the N, SE, and SSW sides of these islands.

Caution.—Local magnetic anomalies exist in the vicinity of Compass Island, Flyspot Rocks, and Cape Berteaux.

Alexander Island to Cape Herlacher, including the Bellingshausen Sea

3.58 Alexander Island (71˚00'S., 70˚00'W.) forms the S entrance point of Marquerite Bay and is separated from the mainland of the Antarctic Peninsula by George VI Sound. This island is shaped like the letter "J" and extends for about 235 miles in a N/S direction. The width of this island varies from about 50 miles in the N part to nearly 150 miles in the S part. The N and W shores of the island are formed by a coastal piedmont which is similar to that on the W side of Adelaide Island.

Terminal Island, small and isolated, is 152m high and lies close off the N extremity of Alexander Island. Toadstool Rocks, up to 2m high, are reported to lie about 26 miles ESE of Terminal Island.

Caution.—Numerous shoal patches and isolated islands are charted up to 60 miles WSW, 40 miles NW, and 2 miles E of Terminal Island. The area surrounding this island is imper-

fectly surveyed and great care should be exercised when navigating in this vicinity.

3.59 Mount Bayonne stands 12 miles SW of the N extremity of Alexander Island. This peak has a comparatively small mass and is 1,400m high. Mount Paris, rising at the N end of Roven Mountains, stands close S of Mount Bayonne and is separated from it by a snowy spur and four sharp, needle rocks of uniform height. Mount Paris, 2,896m high, is the N and tallest of three peaks which extend 8 miles SSE in the form of a narrow crest. A deep depression, 3 miles wide, separates this crest from the S part of Roven Mountains. The peaks in this latter range of mountains have rounded summits, rise up to a height of 2,440m, and have steep N and W sides. The range extends to Mount Cupola which rises 28 miles SSE of Mount Bayonne. Mount Calais, a detached summit, is 2,347m high and stands 22 miles SE of Mount Bayonne.

Cape Brown (69˚16'S., 69˚45'W.), 823m high, forms the W entrance point of George VI Sound, at its N end. This cape is chaotic in appearance, with jagged spurs and ridges descending in steep slopes to the sea. Schoklsky Bay lies on the N side of the cape. This bay extends NW for about 9 miles to Mount Calais and recedes for 6 miles. Hampton Glacier enters the head of this bay.

The Douglas Range forms the E escarpment of Alexander Island and the W shore of the N part of George VI Sound. This range extends 90 miles SSE from the vicinity of Hampton Glacier.

Mount Nicholas, 1,463m high, stands 5.5 miles SSW of Cape Brown and forms the N limit of the Douglas Range. Mount Stephenson, 2,987m high, forms the summit of this range and rises 33 miles S of the cape.

Other prominent peaks in the Douglas Range include Mount Spivey, Mount Huckle, Mount Egbert, Mount Ethelwulf, and Mount Ethelred.

Mount Tyrrell (69˚58'S., 69˚30'W.), 1,310m, stands 4 miles WNW of Damocles Point, on the W side of George VI Sound. Toynbee Glacier separates Mount Huckle from this peak.

Tombaugh Cliffs, ice-free, front the N side of Pluto Glacier, on W side of George VI Sound.

Fossil Bluff (71˚20'S., 68˚17'W.), a projection, is located 15 miles S of Tombaugh Cliffs. A British scientific base is situated in the vicinity of this projection, but is reported to be only occupied during the summer.

Two Step Cliffs (72˚04'S., 68˚25'W.), located 34 miles S of Fossil Bluff, form the N side of a cove. Kirwan Inlet lies 12 miles SSW of Corner Cliffs, which forms the S side of this cove.

Le May, a range of mountains, extends S from the S end of Douglas Range to **Mimas Peak** (71˚56'S., 69˚36'W.).

3.60 George VI Sound (71˚00'S., 68˚00'W.) is a major fault depression which skirts the E and S shores of Alexander Island. The N entrance of this sound, which is 13 miles wide, is formed by Cape Jeremyon, on the E side, and Cape Brown. The edge of the ice shelf at the N end of the sound is 12m high. The edge at the SW end is 9m high.

Vessels entering the N part of the sound are advised to keep to the center or the W side, as strong currents set in this area and the E coast appears to be more gently shelving with the probability of uncharted rocks and shoals lying within this area.

Mount Bagshawe (71˚28'S., 67˚10'W.), 2,225m high, is the summit of the Batterbee Mountains. To the S of these mountains, the E shore of the sound is formed by the sweeping front of Goodenough Glacier, which is 40 miles wide.

At the SE extremity of Alexander Island, the sound has a width of about 35 miles wide. From this point, the sound extends WSW for about 65 miles to the **Eklund Islands** (73˚16'S., 71˚45'W.). The W and largest of these islands is 5 miles long and has two summits, 250 and 395m high. A cairn was reported (1984) to stand on the lower summit.

From the Eklund Islands, the sound continues W for 120 miles. Two large islands and one small island encumber this part of the sound. Several nunataks stand on the W and largest of these three islands.

The English Coast is considered to extend 240 miles W from **Buttress Nunataks** (72˚22'S., 66˚47'W.) to the Rydberg Peninsula.

Cape Vostok (69˚08'S., 72˚11'W.), fronted by a small islet, is located 41 miles WSW of Terminal Island and steeply rises, 2.5 miles ENE, to Saint George Peak, which stands at the W end of Havre Mountain Range. A number of prominent spurs project through this range.

The Johansen Islands, a group of five, lie 15 miles W of the cape and are partly snow-free and low.

Strong currents have been observed to set E or W off the N side of this part of Alexander Island; this area has been observed to be free from ice in the winter months.

Lazarev Bay is entered between Cape Vostok and the N extremity of Rothschild Island, 13 miles SSW. Umber Island, Dint Island, and the Glinka Islands lie within this bay.

3.61 Rothschild Island (69˚25'S., 72˚30'W.) lies 6 miles W of the NW extremity of Alexander Island, from which it is separated by an unsurveyed channel. It is formed by a black, rugged mass which extends for 18 miles in a SE/NW direction. The island is about 11 miles wide in its N part, narrowing perceptibly toward its S end, and is bordered on all sides by a fringing piedmont. Two peaks, each over 600m high, rise in the N part and near the center of the island.

This island has been reported at times to be actually a peninsula which extends W from Alexander Island.

A bank, with a least depth of 27m, lies 46 miles W of this island and extends for about 12 miles in an E/W direction.

Wilkins Sound (Wilkins Ice Shelf) (70˚15'S., 73˚00'W.) extends 60 miles W from the SE extremity of Rothschild Island to Charcot Island. From this latter island, the ice front extends S to Latady Island and then SE to the NE entrance point of Mendelsohn Inlet.

Dorsey Island lies off the W side of Alexander Island, 27 miles SSE of Rothschild Island. Merger Island lies 14 miles ESE of Dorsey Island, at the entrance to Haydn Inlet.

Charcot Island (69˚45'S., 75˚15'W.) lies 40 miles WSW of Rothschild Island, from which it is separated by Wilkens Sound. This island is pear-shaped, with the narrow end, 12 miles wide, forming its SW extremity. The remainder of the island has a width of about 45 miles. The entire island is covered by a low ice cap, 274m high, from which the only rock

Table of Contents

exposures are a series of isolated mountain peaks bordering its N shore.

Cape Byrd (69˚38'S., 76˚07'W.), the W extremity of the island, is formed by a sharp ice cape. Mount Monique, with a long summit, is 610m high and stands close NE of the cape. Marion Nunataks, somewhat lower, rise 20 miles E of this peak. Mount Martine, over 600m high, rises 7 miles SE of these nunataks and is the most striking feature of the island. This mountain is formed by a rugged massif, having dark-colored, jagged peaks with steep slopes. Cape Mawson, the SE extremity of the island, is located 15 miles SE of Mount Martine and is low.

Cheesman, a small and black islet, was reported to lie about 2 miles seaward of the N shore of the island. The entire area in the vicinity of this islet has not been fully surveyed. A patch, with a depth of 73m, was reported (1973) to lie about 25 miles N of the islet.

3.62 Carroll Inlet (73˚18'S., 78˚30'W.) forms the E boundary of the Bryan Coast, which extends W, as an unbroken ice cliff, for about 120 miles to approximately 85˚W, the E boundary of the Eights Coast.

The hinterland of **Ellsworth Land** (75˚30'S., 80˚00'W.) consists of a plateau, about 2,000m high, which is known as the **Hollick-Kenyon Plateau** (78˚00'S., 105˚00'W.). Sentinel Ranges rise between 77˚30'S and 79˚00'S, and between 92˚30'W and 86˚00'W. Mount Ulmer, 3,672m high, stands near the N end of these ranges.

Vinson Massif (78˚35'S., 82˚25'W.), 5,140m high, is the highest known summit in Antarctica.

The **Bellingshausen Sea** (71˚00'S., 85˚00'W.), the limits of which have not been precisely agreed upon, is defined as lying between Thurston Island, on the W side, and Alexander Island, on the E.

Though drift ice covers the greater part of this sea for most of the year, the E portion of the region becomes almost ice-free for a few weeks, in the average year, during February and March. In a severe season, even the E portion remains more or less ice-covered throughout the summer. In a light year, the region lying E of 90˚W is often almost clear of drift by early March.

Due to the action of the prevailing SE winds, polynyas, sometimes covering thousands of square meters, occur from time to time along the coastal regions. As the ice fails to clear from the SW corner of the Bellingshausen Sea, much of the ice in this area is either second or multi-year ice.

The Fletcher Islands, two prominent islands, are located SE of Thurston Island. Dustin Island lies 20 miles SE of Cape Annawan, the E extremity of Thurston Island, at the N side of the ice shelf. This island, about 610m high, is the larger of the two and has several prominent ice-free rock cliffs. A small island is reported to lie, existence doubtful, about 10 miles N of this island. McNamara Island, about 240m high, lies 15 miles E of Dustin Island, at the N side of the ice front.

Seraph Bay is formed between the W side of Dustin Island and the Tierney Peninsula, 18 miles NW. Peale Inlet indents the W side of this peninsula and extends SE for about 15 miles. A glacier flows into the sea about 10 miles NW of the W entrance point of this inlet.

3.63 Peter I Island (68˚47'S., 90˚35'W.), under Norwegian sovereignty, lies 212 miles NE of Thurston Island and 308 miles W of Cape Byrd, the W extremity of Charcot Island. The island is entirely covered with snow and ice, no bare rock being visible, except where the slopes are precipitous. It was reported that the shape of the island varies from that currently charted and several rocks lie close off its N end.

Lars Christensen Peak, the lofty and rounded dome of an extinct crater, is 1,753m high and forms the summit of the island. The W part of the island consists of precipitous slopes while the E part is lower and consists of a piedmont platform. The N side of the island consists of large twin glaciers.

Cape Eva (68˚42'S., 90˚37'W.), the N extremity of the island, is fronted by rocks which are surrounded by foul ground. Several below-water rocks and shoals extend up to 1 mile N from the NW extremity of the island. Breakers may be observed up to some distance seaward of these dangers. Two rocks, 2 and 53m high, lie 1 mile SW of the NW extremity. They are dark, snow-free, and have vertical sides with flat tops.

Larsen Glacier lies 2 miles S of the NW extremity and the shore between consists of ice cliffs. Norvegia Bay lies between the S side of this glacier and Cape Ingrid, 1 mile S. An above-water rock lies close off the NE side of this bay.

Cape Ingrid consists of a bare, barren, and rocky promontory which is 152m high and has vertical sides. A shoal fronts the W side of this cape and extends up to about 0.3 mile seaward. Two small glaciers are located on the S side of this promontory. A large cavern, known as Celil Cave, is located in the rock cliffs of the cape.

Sandefjord Cove lies on the S side of Cape Ingrid. This inlet affords anchorage, in a depth of 38m, sand and volcanic stones, close to the coast. Vessels entering this cove should proceed with care as the bottom is reported to be uneven. Framnes Head, located at the head of this inlet, consists of a steep, rugged platform of lava and basaltic rock. This platform is 75m long and 40m wide; a depot hut was constructed on it in 1929.

3.64 Thurston Island (72˚06'S., 99˚00'W.) extends for about 120 miles in an E/W direction between Cape Annawan, its E extremity, and Cape Flying Fish, its W extremity. The Walker Mountains rise on the N side of this island and attain heights of up to 1,036m. Peacock Sound lies close of S of the island is filled by an ice shelf, of which the Demas Ice Tongue is the W extremity. Shernan Island, about 180m high, lies in the middle of the sound.

Several bays and inlets indent the N coast of Thurston Island. Cape Davies, the NE extremity of the Hughes Peninsula, is located 45 miles ENE of Cape Flying Fish. Glacier Roads indents the middle of the N shore of the island and extends between Cape Davies and the W side of the Noville Peninsula, 15 miles E.

Porters Pinnacles (71˚33'S., 99˚09'W.), a reef, consists of four pinnacles and one large rock, 9m high, and lies in the approach to Glacier Roads. This reef is located about 4 miles from the NW side of the Noville Peninsula and 20 miles ENE of Cape Davies. Mount Palmer rises near the N extremity of the Noville Peninsula. Bergy bits and pieces of ice floes frequently rest on top of this reef.

3.65 Cape Flying Fish (72˚06'S., 102˚29'W.), the W extremity of Thurston Island, forms the E boundary of the Walgreen Coast. This coast extends S for about 170 miles to Pine Island Bay and then WNW for about 185 miles to Cape Herlacher, the N extremity of the Martin Peninsula. The W boundary of the coast is still undetermined.

Peacock Sound is the largest of four bays, all open to the W, which indent the coast between Cape Flying Fish and a point, located about 170 miles S, where the Walgreen Coast turns to the W. This sound is 40 miles wide, at its N entrance, and is reported to extend SE for about 110 miles and then S for about 50 miles, but its farthest SE extent is unknown.

Cape Waite, the S entrance point of Peacock Sound, forms the NW extremity of King Peninsula. From this cape, the coast extends about 50 miles S to the NE extremity of the Canisteo Peninsula. The bay lying close N of this latter peninsula is much smaller than Peacock Sound and an ice shelf was reported (1946) to obstruct its inner half.

Burke Island (73˚08'S., 105˚06'W.) is reported to lie with its S end located about 30 miles W of the SE extremity of the King Peninsula.

The Canisteo Peninsula is reported to project W and be 18 miles wide. Two small groups of islands, known as the Lindsey Islands, lie close off the NW extremity of this peninsula. The Sterrett Islands and the Edwards Islands lie close W of the SW extremity of this peninsula.

The Brownson Islands, reported to be a group of four, lie about 6 miles SW of the SW extremity of the Canisteo Peninsula.

Cranton Bay, 30 miles wide, extends about 20 miles E and lies close S of the SW extremity of the Canisteo Peninsula. From the S entrance point of this bay, the coast recedes to form Pine Island Bay, the last of the four major indentations in the S part of the Walgreen Coast. This bay is 20 miles wide at its entrance and extends SE for an unknown distance.

The Hudson Mountains, two parallel ranges of detached peaks, extend E along the shore between the Canisteo Peninsula and Pine Island Bay. The mountains are snow-covered and attain heights of up to 1,220m.

From the head of Pine Island Bay, the Walgreen Coast extends W for about 160 miles to the Martin Peninsula. Cape Herlacher forms the N extremity of this latter peninsula.

Bear Peninsula extends N from the mainland, 40 miles E of the Martin Peninsula. It is about 50 miles long, 25 miles wide, and 880m high. A bay, of unknown extent, lies E of the Bear Peninsula and is reported to be about 75 miles wide. This bay is filled by the Thwaites Glacier Tongue, an extension of the ice shelf. The Thwaites Iceberg Tongue, which was reported (1966) to be separated from the glacier tongue, protrudes N for a farther 50 miles in the W half of the bay. Another bay lies between the W side of the Bear Peninsula and the E side of the Martin Peninsula. It is obstructed by the Dotson Ice Shelf.

The Kohler Range, an extensive mountain range, stands 30 miles S of the base of the Martin Peninsula. The peaks in this range attain heights of up to 4,570m.

A snow-covered island, 5 miles long, is reported, existence doubtful, to lie about 103 miles NNE of the Bear Peninsula. A number of bare, rocky islands are reported, existence doubtful, to lie close off the coastal ice cliffs of the NE end of the Bear Peninsula.

Cape Herlacher to Cape Colbeck, including the Amundsen Sea

3.66 The Amundsen Sea lies between the W side of Thurston Island and Cape Dart, 400 miles W.

Cape Dart (73˚07'S., 126˚09'W.), lying at the E side of Wrigley Gulf, is located at the foot of Mount Siple, a massive and snow-covered mountain, 3,110m high. An ice front extends between this cape and Cape Herlacher, 228 miles E, and partly encloses two islands. The E and smaller island, known as Wright Island, is 244m high. The W island, of which Cape Dart forms the NE extremity, is about 100 miles long. Three small islets are reported to lie within 18 miles N and NE of Mount Siple.

The Executive Committe Range extends in a NE/SW direction between 76˚30'S, 127˚00'W, and 77˚20'S, 128˚55'W.

Grant Island (74˚30'S., 131˚30'W.), the extent of which is not fully determined, lies at the W side of Wrigley Gulf. Shepard Island, reported to be 5 miles long and 4 miles wide, lies 7 miles W of this island. Forrester Island, 171m high, lies 14 miles NNE of Shepard Island and is covered with a layer of ice and snow, about 100m thick.

The Getz Ice Shelf fronts the coast between the vicinity of Cape Dart and Grant Island. Dean Island is enclosed within this ice shelf, 48 miles E of Grant Island.

A detached group of bare, rocky hills stands S of Grant Island. This group marks the W side of Wrigley Gulf and the E end of the Hobbs Coast. From this group, the Ames Range extends SE and consists of several large, isolated, and snow-covered masses which have flat tops and steep, precipitous sides. Large glaciers debouch NE between these masses. This high range extends SE to the E extension of the Hal Flood Range.

3.67 The **Hobbs Coast** (74˚50'S., 132˚00'W.) extends 120 miles SW from the W edge of the Getz Ice Shelf to the E side of Land Bay. The section of this shore lying between Land Bay and Hull Bay, 60 miles NE, is bordered by a coastal range. The peaks in this range are nearly bare and have steep, snow-free cliffs on their N faces. The S side of this range is drowned by the continental ice descending from the high interior plateau.

Hull Bay is completely filled by Cordell Hull Glacier, which drains a vast basin. Mount Giles, over 900m high, forms the W entrance point and consists of a clump of glaciated mountain, snow-free only on the wind swept heights. Shoals are reported to probably lie along the portion of the coast in the vicinity of this bay. They cause grounding of the expanded ice tongue and render the bay inaccessible to vessels.

Cape Burks (74˚45'S., 136˚50'W.), a well-defined point, is located 15 miles NNE of the entrance to Hull Bay. This cape is marked by bare rock and a penguin rookery is situated in its vicinity.

Cruzen Island (74˚47'S., 140˚40'W.), lying 57 miles W of Cape Burke, is a rocky crag, over 300m high. It is composed of black, coal-like rock which is probably of volcanic origin. A vessel reported (1962) that this island was conspicuous among the many huge and grounded bergs in the area. A large ice field, not navigable in 1940 except by icebreakers, was reported to extend WSW and ESE of the island.

A small island was reported (1963) to lie about 15 miles SE of Cruzen Island.

Land Bay is about 10 miles wide. Mount McCoy, a high and flat-topped massif, stands near the head of this bay and has dark, snow-free, and vertical sides. Land Glacier, heavily crevassed, descends into the bay on either side of this massif.

3.68 The **Ruppert Coast** (75˚45'S., 141˚00'W.) extends about 75 miles WSW from Land Bay to the N entrance point of Block Bay. It consists of an ice slope which has many snow-covered ridges. The Phillips Mountains, a coastal range of isolated peaks, stand behind the shore and attain a height of 1,200m.

Block Bay, 20 miles wide, lies between the W side of the Ruppert Coast and the Guest Peninsula. A glacier descends into the head of this bay. The Guest Peninsula is about 40 miles long, 25 miles wide, and extends in an E/W direction.

Sulzberger Bay, about 130 miles wide, lies between the W side of the Guest Peninsula and **Cape Colbeck** (77˚10'S., 158˚00'W.), the N extremity of the Edward VII Peninsula. The Alexandra Mountains form the coastal range which stands along the shores of the bay. This extensive bay is almost entirely filled by the Sulzberger Ice Shelf and four glaciers flow into its SE side. Although patches of water have been observed from aircraft, the bay has never been reported to be ice-free. A vessel reported (1962) that four low, ice-covered islands lie within the bay, the N being located about 14 miles WSW of the Guest Peninsula.

Scott Nunataks, over 600m high, stand, with twin summits, on the W side of the bay, 53 miles ESE of Cape Colbeck. McKinley Peak, 760m high, rises 90 miles SE of Scott Nunataks, near the head of the bay. This mountain forms the SW end of the Ford Ranges, which extend along the S and E sides of the bay. These ranges consist of a series of mountain groups of variated structures and appearance. The Rockefeller Plateau, 760 to 1,220m high, stands about 270 miles SE of Cape Colbeck.

Marie Byrd Land is defined as that portion of Antarctica lying E of the Ross Ice Shelf and the Ross Sea and S of the Pacific Ocean. It extends E approximately to a line between the head of the Ross Ice Shelf and the Eights Coast. The Rockefeller Plateau is considered to be the Marie Byrd Land portion of the Antarctica Plateau.

Table of Contents